ABSTRACT

Oral Presentations

O001 | Approach to muscle tears. Why and how to predict muscle tears

M. Cresswell
St Paul’s Hospital, Vancouver, Canada
Presenting author: M. Cresswell

Musculoskeletal · Lecture Session 2, Great Hall 2, June 21, 2019, 1:00 PM - 2:30 PM

- Normal Brachial plexus anatomy, evaluating what we can see on ultrasound, and what areas are more challenging to visualise
- Common anatomical sites for impingement and pathology
- How to assess cervical ribs and bands resulting in impingement
- Neural masses—what we need to document (neural tail, single or multiple lesions, vascularity, eccentric or central to nerve, and etc)
- Lung apical masses invading brachial plexus (Pancoast tumours)
- Vascular anomalies (Subclavian aneurysms)
- Trauma patterns of the brachial plexus and associated imaging findings (traction vs impaction injuries, clavicular fractures, and anterior shoulder dislocations.
- Brachial neuritis (Parsonage Turner syndrome)
- MRI vs ultrasound (benefits and limitations)

Brachial plexus pathology is reasonably common and includes trauma, neural impingement (cervical ribs and bands and thoracic outlet syndrome), neural masses and tumours, and vascular abnormalities, most of which is readily visualized using ultrasound.

O002 | Will 2D shear wave elastography change the way skeletal muscles are imaged?

S. Mackintosh1,2; A. Young1; A. Lee3; J. Sim1

1 Department of Anatomy and Medical Imaging, School of Medical Imaging, The University of Auckland, Auckland, New Zealand; 2 Pacific Radiology Group, Wellington and Manawatu, New Zealand; 3 Section of Epidemiology and Biostatistics, School of Population Health, The University of Auckland, Auckland, New Zealand

Presenting author: S. Mackintosh

Musculoskeletal · Lecture Session 2, Great Hall 2, June 21, 2019, 1:00 PM - 2:30 PM

Introduction: Both the European and World Federations for Ultrasound in Medicine and Biology have issued consensus guidelines on the clinical application of elastography for liver, breast, thyroid, and prostate imaging although no such consensus exists for the use of elastography in the investigation of the biomechanical properties and pathology of skeletal muscle.

The aim of this presentation is to provide a review of current literature on 2D shear wave elastography (2D-SWE) in imaging of muscle.

Method: This is a detailed review of available literature on 2D-SWE and its application to skeletal muscle contributing to a research portfolio as part of a Masters of Health Sciences, through The University of Auckland.

Results: There has been a wide variety of research aims and methodologies implemented to investigate muscle function and pathology. The potential and limitations of 2D-SWE implementation in the evaluation of muscle is becoming increasingly appreciated but there is a lack of consistency in scanning techniques and methodology.

Conclusion: This review indicates 2D-SWE research methodology is heterogeneous, and study comparisons are limited. 2D-SWE offers advantages over traditional methods of evaluating biomechanical properties; however, robust protocols are needed. The unique construction of skeletal muscle tissue requires consideration when utilising 2D-SWE as orientation to muscle fibres and active state of muscle, impacts results.

Take Home Message: 2D-SWE is a promising tool in the investigation of skeletal muscle. However, considered and consistent methodology is required to inform the development of future guidelines.

O003 | Ultrasound of the carpometacarpal joint of the thumb

G. Lammers
I-Med Casey Radiology, Berwick, VIC, Australia
Presenting author: G. Lammers

Musculoskeletal · Lecture Session 2, Great Hall 2, June 21, 2019, 1:00 PM - 2:30 PM

The human thumb is one of the more amazing anatomical designs that sets us apart from all other hominids. In particular, the carpometacarpal
joint (CMCJ) or trapeziometacarpal joint (TMCJ) is at the centre of this unique design where the thumb can be part of a firm grasp or a fine pinch. The CMCJ is a concavo-convex saddle design. It has to function in a paradox of having great mobility but remaining stable. The joint is supported by a series of ligaments, in particular, the anterior oblique ligament or volar beak ligament. This is the main stabilizer of the CMCJ. Osteo arthritis of the joint with advancing age is the most common pathology and more common in females. Whilst treatment options were few in the past, modern hand surgery has opened up many options. This presentation will review the anatomy, pathology, and ultrasound technique to image the CMCJ so to give better patient outcomes. Ultrasound of the CMCJ should be part of all wrist ultrasound exams.

O004 | Snap, crackles, and pops ultrasound for musculoskeletal pathologies detected

C. Chong

IMED, Queensland, Australia

Presenting author: C. Chong

Musculoskeletal - Lecture Session 2, Great Hall 2, June 21, 2019, 1:00 PM - 2:30 PM

Ultrasound has a distinct advantage over other imaging modality of musculoskeletal conditions that are only detected with patient movement. Dynamic ultrasound allows the sonologist to visualise nerves, muscles, tendons, ligaments, and their interactions in real time. A directed and relevant clinical history and understanding of biomechanics allow the sonologist to characterise pathologies that involve sensations of snapping, popping, clicking, clunking, triggering, or crackling, replicated by reproducing the patient’s symptoms.

O005 | IOTA simple rules and models in assessment of ovarian masses

L. Jokubkiene

Department of Obstetrics and Gynaecology, Skane University Hospital, Malmö, Sweden

Presenting author: L. Jokubkiene

Obstetrics/Gynaecology - Lecture Session 2, Mezzanine M3, June 21, 2019, 1:00 PM - 2:30 PM

Synopsis unavailable at time of publication.

O006 | Cervix shear wave elastography: A comparison of transvaginal and transabdominal techniques

S. O’Hara1,2; M. Zelesco3; Z. Sun2

Introduction: Shear wave elastography can be used to assess the stiffness of tissues in the region of interest. There has been some research into its use with a transvaginal ultrasound approach to assess cervical stiffness and limited research into the use of a transabdominal approach.

Objectives: To compare and discuss limitations of both the transabdominal and transvaginal techniques for obtaining shear wave speeds in the maternal cervix.

Method: Shear wave speed measurements were obtained at the internal and external os, anterior and posterior portions in both the transabdominal and transvaginal approaches. A minimum of two reliable measurements were required in each region to formulate a mean speed. Measurements were obtained in the mid sagittal plane of the cervix. The transabdominal technique utilises a partially full maternal bladder to aid main pulse transmission, and the transvaginal approach uses an empty maternal bladder and reduced probe pressure at the anterior fornix.

Results:

<table>
<thead>
<tr>
<th></th>
<th>External os Anterior</th>
<th>External os Posterior</th>
<th>Internal os Anterior</th>
<th>Internal os Posterior</th>
</tr>
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<tbody>
<tr>
<td>Transabdominal</td>
<td></td>
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</tr>
<tr>
<td>number of reliable</td>
<td>38</td>
<td>28</td>
<td>36</td>
<td>23</td>
</tr>
<tr>
<td>measurements</td>
<td></td>
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<tr>
<td>Mean speed ± SD</td>
<td>2.07 ± 0.38</td>
<td>2.49 ± 0.52</td>
<td>2.45 ± 0.47</td>
<td>2.49 ± 0.42</td>
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<tr>
<td>Transvaginal</td>
<td></td>
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<tr>
<td>number of reliable</td>
<td>40</td>
<td>33</td>
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<tr>
<td>measurements</td>
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<td></td>
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<tr>
<td>Mean speed ± SD</td>
<td>2.22 ± 0.42</td>
<td>2.46 ± 0.49</td>
<td>3.14 ± 0.78</td>
<td>3.15 ± 0.54</td>
</tr>
</tbody>
</table>

Conclusion: Shear wave speed measurements can be obtained in the maternal cervix using either the transabdominal or transvaginal approach in most patients, with a larger number of accurate measurements obtained in the anterior cervix compared to the posterior.

Take home message: It is appearing possible to use a non-invasive transabdominal approach or the transvaginal approach to assess the stiffness of the maternal cervix using shear wave elastography. This may have implications for the assessment of cervical insufficiency.

O007 | Placental chorioangioma: 3 different case studies

J. Cowie
**Introduction:** Chorioangiomas are the most common benign tumour of the placenta and are usually small and asymptomatic. Placental tumours that are >5 cm increase the chance of maternal and fetal complications.

**Method:** We follow the course of three pregnancies with a diagnosis of placental chorioangioma and their different presentations and outcomes. We assess the ultrasound findings and correlate them with placental pathology reports and clinical photos of each case.

**Results:**

**Case 1:** The patient presented at K32+2 with an indication of placental lakes increasing in size. On scan, a large chorioangioma was seen along with fetal cardiomegaly and increased MCA PSV indicating fetal compromise. As a result of the findings, the baby was delivered the next day.

**Case 2:** The patient was referred for LGA at K31. The findings were a chorioangioma and polyhydramnios. Patient underwent an amniodrainage. She again presented 10 days later with increased discomfort. The ultrasound showed polyhydramnios and increased size in the chorioangioma. The patient had another amniodrainage and planned delivery the following day.

**Case 3:** The patient was referred for a growth scan due to multiple medical conditions. A chorioangioma was found but of a small size and no effect on the mother or fetus. Surveillance was planned anyway due to the patient's medical conditions.

**Conclusion and Take Home Message:** The presence of a chorioangioma can affect a pregnancy in a number of ways, particularly if it is large. Surveillance is necessary to monitor its size and if it is affecting the mother or the fetus.

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**O008 | Updated PCOS guidelines**

S. Piessens

Presenting author: S. Piessens

**Synopsis unavailable at time of publication.**

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**O009 | An unusual case of a thoracic meningomyelocele**

T. Clapham; S. Petersen; G. Gardener; J. Thomas; S. Kumar; J. Lodge; S. Lobley; R. Cook; K. Nolan; A. Lee-Tannock; D. Sheehan; D. Kolb

**Centre of Maternal Fetal Medicine, Mater Mother's Hospital, South Brisbane, Australia**

Presenting author: T. Clapham

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**O010 | Arm arteries—Including thoracic outlet syndrome**

T. Hartshorne

**University Hospitals of Leicester, Leicester, United Kingdom**

Presenting author: T. Hartshorne

**Synopsis unavailable at time of publication.**

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Ultrasound imaging of upper limb vascular pathology is relatively easy due to the superficial position of the arm arteries but can be challenging for the proximal subclavian arteries in the sternoclavicular region and in the hands. Correct positioning of the arm during the exam is very important, especially when imaging the axillary artery where two approaches are required. Upper limb symptoms are
frequently acute resulting from cardiac embolisation. Starting the scan at the level of the elbow and imaging the brachial artery will rapidly indicate the presence of proximal or distal disease, or embolus occluding the brachial artery bifurcation. Upper limb symptoms can be caused by thoracic outlet syndrome (TOS) due to impingement of the subclavian artery or brachial plexus, or both as they leave the chest. Assessment for TOS can be subject to misinterpretation as a result of poor technique and patient positioning leading to false positive results.

**O011 | Peripheral arterial duplex ultrasound**

M. Necas

*Tristram Clinic, Hamilton, New Zealand*

_Presenting author: M. Necas_

_Vascular - Lecture Session 2, Mezzanine M4, June 21, 2019, 1:00 PM - 2:30 PM_

Peripheral arterial duplex ultrasound is the examination of choice for the assessment of lower extremity arteries. The decision to image the patient should only be made if the patient’s history and clinical examination determine that (a) the patient may harbour peripheral arterial disease (PAD), (b) patient is likely symptomatic from this disease, and (c) the patient needs an intervention if disease is present. Many patients referred for investigation of lower limb arteries from primary care doctors do not need duplex imaging. Instead, they require a careful clinical examination and ankle-brachial pressure index testing with or without exercise. This simple assessment can be performed by a specialist vascular sonographer or by a vascular doctor in a vascular clinic. Those patients who need duplex imaging require a comprehensive examination from the aorta to the ankle to identify the exact sites of disease, disease severity and suitability for intervention. It is a common practice in some centres to perform lower limb arterial imaging from the groin to the ankle, without imaging the aorta and iliac arteries. This is based on the false belief that iliac disease will manifest as abnormality in CFA waveforms. This premise has been proven wrong decades ago. Comprehensive duplex examination commences with the aorta and ends at the ankle. In this presentation, we will discuss the appropriate role of duplex ultrasound in the management of patients with PAD.

**O012 | Paediatric MSK**

C. Brockley

*Royal Children’s Hospital, Melbourne, Australia*

_Presenting author: C. Brockley_

_Paediatrics - Lecture Session 3, Great Hall 2, June 21, 2019, 3:00 PM - 5:00 PM_

The causes of musculoskeletal pathology in children are multiple and varied. They can be congenital, developmental, inflammatory, infective, neoplastic, rheumatological, and/or traumatic. This diverse range of possible causes along with the physiology of the developing bony anatomy can make paediatric MSK ultrasound unique and at times difficult.

Whilst paediatric musculoskeletal examinations can be easily adapted from adult techniques, it is the appearance of the anatomy, the clinical question and purpose of the study, which can vary. This presentation will cover the varying appearances of the skeletal system with age, the common reasons for referral for musculoskeletal ultrasound in children, the various pathologies that occur, and the sonoanatomic technique and appearances.

Take home messages:

Be aware of the normal musculoskeletal appearances at different ages.

Understand the common causes of musculoskeletal problems in children and how to tailor your examination to the clinical question.

**O013 | Ultrasound of superficial pathology in and around the head in children**

G. Long¹²

¹ Queensland Children's Hospital, Brisbane, Australia; ² IMed Radiology, Australia

_Presenting author: G. Long_

_Paediatrics - Lecture Session 3, Great Hall 2, June 21, 2019, 3:00 PM - 5:00 PM_

This session aims to demonstrate the value of ultrasound in assessing superficial structures in and around the head in children. Intracranial and extracranial fluid collections can be a source of confusion. This talk will look at the sonoanatomic assessment of superficial extra axial fluid deep to the anterior fontanelle in infants and the value of ultrasound in differentiating between subdural and subarachnoid fluid at this site, plus how the appearance may vary with different aetiologies. Similarly, extracranial subgaleal and subperiosteal fluid collections will be discussed and their distinguishing sonoanatomic features. Ultrasound is often the initial imaging modality for assessment of a lump, and this talk will include a discussion of the sonoanatomic appearance of some of the varied focal lesions that may involve or overlie the cranium in children.

**O014 | Spinal pathologies**

J. McEniery¹²

¹ QScan Radiology, Brisbane, Australia; ² Queensland Children’s Hospital, Brisbane, Australia

_Presenting author: J. McEniery_

_Paediatrics - Lecture Session 3, Great Hall 2, June 21, 2019, 3:00 PM - 5:00 PM_

Synopsis unavailable at time of publication
O015 | Cranial ultrasound

G. McLean

Monash Health, Melbourne, Australia
Presenting author: G. McLean

Paediatrics - Lecture Session 3, Great Hall 2, June 21, 2019, 3:00 PM - 5:00 PM

Neonates who are born preterm (<32 weeks) are susceptible to germinal matrix, intraventricular haemorrhage, and parenchymal changes. Cranial ultrasound is suitable for screening neonates for these conditions and monitoring pathology if it occurs. This presentation will outline common pathology in the preterm and term neonate and the technique for scanning the neonatal brain. When to perform the scans, for optimal diagnosis of pathology, will be discussed.

O016 | The teenage abdomen

M. Philips

Presenting author: M. Philips

Paediatrics - Lecture Session 3, Great Hall 2, June 21, 2019, 3:00 PM - 5:00 PM

Synopsis unavailable at time of publication.

O017 | Linear ultrasound assessment of the pyramid and medulla in the paediatric kidney

D. Jayawardena

Monash Health, Melbourne, Australia
Presenting author: D. Jayawardena

Paediatrics - Lecture Session 3, Great Hall 2, June 21, 2019, 3:00 PM - 5:00 PM

Introduction: The renal pyramid and medulla within the paediatric kidney are vulnerable to many pathological changes due to their distinctive arrangement of blood supply and hypertonic environment. It is thus important for paediatric sonographers to be well oriented to identify unusual corticomedullary architecture and altered patterns of echogenicity that may be suggestive of an underlying abnormality. These ultrasound patterns are best demonstrated with the use of a high frequency linear transducer and a well-optimised, diligent technique to identify subtle changes.

The aim of this presentation is to review normal ultrasound appearances of the paediatric kidney when investigated with a linear transducer and highlight the alterations often seen in the presence of an underlying abnormality.

Methods: An extensive literature review was performed to compare and contrast sonographic appearances of the normal and abnormal paediatric kidney, with a particular focus on the pathological changes affecting the renal medulla and pyramids.

Results: With the use of a linear transducer, the renal interstitium, subtle increases in medullary echogenicity, structural changes to the collecting ducts, and deposition of calcifications are credibly illustrated on ultrasound.

Conclusion: Assessment of the renal pyramid and medulla with a linear transducer are essential in a paediatric renal ultrasound examination. Subtle changes in echogenicity as well as alterations to the normal corticomedullary architecture are abnormalities that may not be appreciated if the kidney was assessed only with a curvilinear transducer.

Take home message: Perform a high quality focussed linear examination of the paediatric kidney for each examination.

O018 | Phyllodes tumours: What’s the story

J. Parkes

1 Maroondah Breast Screen, Ringwood East, Australia; 2 I-Med/MIA Radiology, Melbourne, Australia

Presenting author: J. Parkes

Breast - Lecture Session 3, Mezzanine M3, June 21, 2019, 3:00 PM - 5:00 PM

Phyllodes tumours account for less than 1% of all breast tumours and commonly appear similar to fibroadenomas. This paper will review the importance of trying determine if a lesion is likely a phyllodes tumour (PT) during the ultrasound scan, due to the different treatment options and prognosis from fibroadenomas (FA).

The World Health Organisation classifies PT's as benign, borderline, and malignant based on a combination of histological features, but there are no clear cut-offs between the categories creating some subjectivity in the diagnosis. In addition, there is overlap in radiology appearances, and they may co-exist with FA's (2,3).

The three grades of PT have differing potential for recurrence: benign locally, borderline locally, and with a low risk of metastases and malignant tumours have highest risk of metastases that may prove fatal as usually aggressive.(3) Review in 1-2 after removal is suggested.(5)

Clinically, small lesions may not be palpable, otherwise significant growth since prior imaging, sudden massive enlargement with bluish skin discolouration due to engorged veins, even ulceration or chest wall invasion.(3)

Ultrasound appearances may be nonspecific to grade but consider a PT tumour with

- increased posterior enhancement
- margin lobularity
- larger size increases the likely grade
- internal cystic components
• Calcifications if present are likely to be coarse and no microcalcification.
• elastography may show that the PT is stiffer than a FA
• heterogeneous, hyperechoic, and internal vascularity than FA
• larger size may indicate higher grade.(1,6)

Mammographic findings, including Tomosynthesis, will show a dense well-circumscribed round or oval mass, with the very large ones showing overlying skin thickening (2,6).

MRI findings showing cystic components, increased enhancement, absent internal septations, lobulated margins, low ADC values, and the kinetic curves may not be of use.(1,6)

The take home message is to be more vigilant in sonographically characterising FA’s to include a likely PT in the differential diagnosis to guide appropriate surgical management and follow-up.

**O019 | Breast elastography early experiences**

N. Clements

SKG Radiology, Bunbury, Australia

Presenting author: N. Clements

**Abstract**

Breast elastography improves the diagnostic performance of B mode ultrasound to characterise lesions including histological profile, tumour grade, and molecular subtype.

**O020 | Breast ultrasound technique—An update**

J. Parkes

1 Med/MIA Radiology, Melbourne, Australia; 2 Maroondah BreastScreen, Ringwood East, Australia

Presenting author: J. Parkes

**Abstract**

Breast - Lecture Session 3, Mezzanine M3, June 21, 2019, 3:00 PM - 5:00 PM

**Introduction:** Breast scanning has many suggested techniques often based on those learnt in clinical practice, reading Stavros and other literature, habit. Some sonographers new to breast ultrasound can feel quite confused about the basic and advanced requirements.

**Method:** This presentation is based on my many years of experience in breast scanning/teaching and will outline my recommended approach and techniques, including

- pre-scan preparations- past and recent history, imaging, clinical issues
- my preferred scanning technique explained for screening
- additional techniques for specific clinical situations
- imaging tips
- what to do when you don’t know if what you see is pathology or normal breast tissue.

**Conclusion and Take-home message:** My aim is that at the end of the presentation, you will have a better understanding of the basic and advanced scanning techniques to perform consistently high-level breast imaging with confidence.

**O021 | TBC**

J. Dalton

Presenting author: J. Dalton
**O022 | TBC**

C. Prather  
*Presenting author: C. Prather*

Breast - Lecture Session 3, Mezzanine M3, June 21, 2019, 3:00 PM - 5:00 PM

Synopsis unavailable at time of publication.

**O023 | TBC**

I. Schroen  
*Monash Radiology, Clayton, Australia*  
*Presenting author: I. Schroen*

Breast - Lecture Session 3, Mezzanine M3, June 21, 2019, 3:00 PM - 5:00 PM

Synopsis unavailable at time of publication.

**O024 | TBC**

K. McMahon  
*Presenting author: K. McMahon*

Breast - Lecture Session 3, Mezzanine M3, June 21, 2019, 3:00 PM - 5:00 PM

Synopsis unavailable at time of publication.

**O025 | Everyday bowel ultrasound**

C. Cormack  
*Monash Health, Melbourne, Australia*  
*Presenting author: C. Cormack*

General/Small Parts - Lecture Session 3, Mezzanine M4, June 21, 2019, 3:00 PM - 5:00 PM

**Introduction:** Patients presenting with abdominal or pelvic pain may frequently have an ultrasound examination as part of diagnostic workup. Extending a routine abdominal or pelvic ultrasound examination when the cause of pain has not been identified, may reveal bowel pathology as a cause of symptoms.  

**Method:** Ultrasound can be readily extended beyond routine abdominal or pelvic scan protocols to examine focal regions of pain. Sonographic bowel scanning techniques include central “grid” scanning and following large bowel from the iliac fossae during an abdominal scan, as well as transvaginal assessment during a pelvic scan.

**Results:** Ultrasound has been shown to be a sensitive and valuable modality for diagnosing many types of bowel pathology. Sonographic diagnosis of various pathological conditions including obstruction, perforation, inflammatory bowel disease, and diverticulitis, will be presented through case examples.  

**Conclusion:** This presentation will update sonographers on the everyday use of ultrasound for the diagnosis of a range of bowel conditions in the patient presenting with abdominal or pelvic pain.  

**Take home message:** Ultrasound is a valuable modality for diagnosing many bowel pathologies.

**O026 | Grading fatty liver and detecting liver pathological features—Is there consensus between sonographers and radiologists?**

D. Yang¹; M. Schneider²; P. Lombardo²  
¹Canberra Imaging Group, Canberra, Australia; ²Department of Medical Imaging and Radiation Sciences, Monash University, Clayton, Australia  
*Presenting author: D. Yang*

General/Small Parts - Lecture Session 3, Mezzanine M4, June 21, 2019, 3:00 PM - 5:00 PM

**Introduction:** Hepatic steatosis is the leading cause of chronic liver disease. Reliable detection and staging of liver disease using ultrasound is important to facilitate diagnosis and treatment. The aim of this study was to evaluate the interobserver agreement between trainee sonographers, qualified sonographers, and radiologists in grading non-alcoholic fatty liver disease (NAFLD) and detecting common liver pathological features on B-mode images.  

**Methods:** 150 B-mode liver ultrasound images from 50 adult patients referred for abdominal ultrasound were obtained retrospectively from a PACS system. The images were independently graded for the severity of hepatic steatosis (normal, mild, moderate, or severe) and the detection of incidental findings, focal fatty sparing, liver surface irregularity, and rounded liver edge (present or absent) by 17 qualified, six trainee sonographers and six radiologists. Fleiss’ kappa statistic was used to calculate interobserver agreement.  

**Results:** The interobserver agreement rates among trainee sonographers for the detection of incidental findings, focal fatty sparing, liver surface irregularity, and rounded liver edge were κ = 0.243, 0.486, 0.155, and 0.079, respectively. Among qualified sonographers, the agreement rates were κ = 0.323, 0.428, 0.167, and 0.152, respectively. Among radiologists, the agreement rates were κ = 0.156, 0.266, 0.015, and 0.154 respectively.

**Conclusion:** Visual assessment of common liver pathology in B-mode imaging has low interobserver agreement among sonographers and radiologists but excellent inter-rater reliability in grading NAFLD. The low agreement levels are likely caused by a lack of standardised assessment criteria.  

**Take home message:** Development of standardised criteria for staging NAFLD and liver pathological features are recommended.
O027 | Definitions and strategies for the consistent use of sonographic features in thyroid nodules

U. Chauhan; D. Nandurkar; P. Coombs; I. Lavender
Monash Health, Melbourne, Australia
Presenting author: U. Chauhan

General/Small Parts - Lecture Session 3, Mezzanine M4, June 21, 2019, 3:00 PM - 5:00 PM

Introduction: Thyroid nodules occur in up to 68% of the population. In 2015, the ATA described an ultrasound criteria that had been widely adopted to determine the risk of malignancy on ultrasound. In recent times, the TIRADS scoring system has been proposed. In parallel, KTIRADS has also been used. The goal of these new scoring systems is to improve the overall sensitivity and specificity of selection for FNA.

TIRADS has recently been implemented at Monash Health. The change in criteria has required a need for clarification about certain sonographic features such as composition, echogenicity, shape, margin, and echogenic foci.

The objectives of this clinical update aim to define the ultrasound criteria for nodular classification and to identify how they differ between the ATA, TIRADS, and KTIRADS criteria.

Method: The white paper and journal articles discussing detailed sonographic criteria for ATA, TIRADS, and KTIRADS were reviewed. The sonographic features used to stratify nodules are compared between the different types of criteria.

Results: Composition: Similar however, ATA and TIRADS provide specific details about the solid components of mixed nodules. Echogenicity: TIRADS and KTIRADS classify nodules into hypoechoic and very hypoechoic. Margins: KTIRADS discusses extra-thyroid extension in further detail. Vascularity: Not discussed in TIRADS. Calcification and shape: Similar between the three.

Conclusion: ATA, TIRADS, and KTIRADS use similar sonographic features for stratification for thyroid nodules with small variations.

Take home message: Ensure you workplace is using consistent sonographic features for thyroid nodule stratification.

O028 | What you see is what you get: Ophthalmic sonography

J. Durant
Specialty Training & Advanced Review Sonography Services, Greater Minneapolis-St. Paul Area, USA
Presenting author: J. Durant

General/Small Parts - Lecture Session 3, Mezzanine M4, June 21, 2019, 3:00 PM - 5:00 PM

This presentation will describe in detail the anatomy and vasculature of the human eye. It will overview the ophthalmic protocol, along with proper technique of scanning, to ensure all regions are assessed on a very sensitive organ. The sonographer must also be aware of maintaining the proper machine mechanical index to not injury the eye. Common pathologies of the eye will also be reviewed.

O029 | Sonography of the acute scrotum

S. Abbott; M. Zelesco
Fiona Stanley Hospital, Perth, Australia
Presenting author: M. Zelesco

General/Small Parts - Lecture Session 3, Mezzanine M4, June 21, 2019, 3:00 PM - 5:00 PM

Male patients often present to hospital emergency departments complaining of an acutely painful scrotum. A wide range of pathological conditions, including infection, ischemia, and trauma may be the underlying cause. Infectious scrotal conditions include epididymitis, orchitis, testicular abscess, pyocele, and Fournier’s gangrene. Ischemic events may occur in the setting of torsion or advanced infection. Traumatic injuries to the scrotum vary and include blunt, penetrating, and degloving injuries.

Some of these conditions may warrant emergency urological surgery; hence, timely treatment is crucial to maintain fertility, hormonal activity, or erectile function. Especially in cases where there may be an associated penile involvement. Prompt imaging workup and rapid recognition of pathological conditions are essential for optimal patient outcomes.

This talk presents some commonly occurring scrotal entities that may be visualised on ultrasound.

O030 | Difficulty of shoulder ultrasound: Beyond the normal scan

M. Cresswell
St Paul’s Hospital, Vancouver, Canada
Presenting author: M. Cresswell

Musculoskeletal - Lecture Session 4, Great Hall 2, June 22, 2019, 9:00 AM - 10:30 AM

- Biceps—stability and dynamic scanning, pectoralis stabilization of the long head, and LHB muscle belly assessment. Short head biceps assessment.
- Superior lateral subscapularis tendon and the LHB slings (CHL & SGHL)
- Supraspinatus and the rotator cable
- Infraspinatus and the posterior GHJ margin, spinoglenoid notch, and paralabral cysts.
O031 | Ultrasound of the anterior and lateral hip, not just trochanteric bursitis

S. O’Brien

Hunter Imaging Group, Newcastle, Australia
Presenting author: S. O’Brien

Musculoskeletal - Lecture Session 4, Great Hall 2, June 22, 2019, 9:00 AM - 10:30 AM

Introduction: Ultrasound of the hip is a popular investigation of hip pain with many referrers with the most common differential diagnosis being trochanteric bursitis. Quite often a thorough ultrasound examination will exclude trochanteric bursitis as a cause for the patient's pain and another diagnosis made such as tendinopathy, iliopsoas bursitis, iliobial tract syndrome, nerve entrapment, or gluteal tendon tears.

Method: Ultrasound examination and imaging of both anterior and lateral hip structures that are visible with ultrasound, using a high frequency linear array transducer along with a thorough clinical history of the patient’s symptoms.

Results: Assessment of both anterior and lateral hip structures using ultrasound along with a comprehensive clinical history allows for an accurate assessment of the cause of the patient’s pain.

Conclusion: Ultrasound examination of both the anterior and lateral hip is valuable investigation in providing a thorough and accurate assessment of the patient’s symptoms. A thorough departmental protocol and adequate training of sonographers in both lateral and anterior anatomy assessable by ultrasound is key in ensuring accuracy and quality in ultrasound imaging of the hip.

Take home message: It is important to assess all the structures of the hip visible by ultrasound not only laterally but also anteriorly as the diagnosis is not always trochanteric bursitis. There are a variety of pathologies and abnormalities that ultrasound has the ability to assess, image, and diagnose.
O039 | Does Australia need national guidelines on communicating adverse findings to pregnant patients? The views of Australian sonographers

S. Thomas
Sydney University, Lidcombe, Australia
Presenting author: S. Thomas

Introduction/Aim: Sonographers are regularly placed in the challenging position of deciding whether to communicate an adverse finding to a pregnant patient. This situation arises because of the patient's expectation of open communication during the scanning process, even though this may be in breach of the sonographer's professional role and/or not comply with departmental policies in relation to communicating adverse results directly.

This study explored the experiences of Australian sonographers in relation to directly communicating findings to a pregnant patient in different practice settings and locations and sought their views on the need for standardised national policies and guidelines.

Method: An online survey of ASA members with experience in obstetric settings (n = 249).

Results: Most sonographers report communicating adverse findings directly to pregnant patients, despite the lack of any formalised departmental policies or training. Depending on the circumstances, almost all believe it is part of the sonographer's role to do so even though it can be a distressing experience; sonographers in radiology settings reported a lack of back up and support mechanisms in these situations.

The view of the majority of sonographers is that there should be some form of national policy and/or guidelines.

Conclusion: Acknowledgment of the inherent, direct communicative role sonographers play in reporting adverse obstetric findings is urgently needed by way of formal policies and guidelines from relevant professional bodies.

Take home message: Sonographers in Australia need guidelines on communication as well as formalised support mechanisms from professional bodies and sonologists in the obstetric ultrasound setting.
Vascularity and blood circulation are essential parameters of the physiological status of parenchymal organs. The assessment of these parameters is important for the detection of many pathologies and functional abnormalities. Using contrast agents injected into the bloodstream, ultrasound is able to assess the distribution and circulation of blood in superficial and deep organs—contrast enhanced sonography (CEUS).

Since 1999, the introduction of second-generation contrast agents has represented a decisive step towards the extensive clinical use of CEUS. Due to the liver’s unique vascular system and multiple functions, it renders it a common location for a variety of diffuse disease states and masses. Hence, a great deal of research and CEUS experience has been focused on the liver. However, as it is a systemic administration, it can be used for any target organ. As a result, CEUS has expanded and has proven applications in many other abdominal organs.

**O041 | Understanding the pancreas**

J. Durant

*Specialty Training & Advanced Review Sonography Services, Greater Minneapolis-St. Paul Area, USA*

*Presenting author: J. Durant*

General/Small Parts - Lecture Session 4, Mezzanine M4, June 22, 2019, 9:00 AM - 10:30 AM

This presentation will describe the anatomy and physiology of the pancreas, along with its important influence on the surrounding organs. Pancreatic disease processes and their sonographic appearance will be overviewed. The ability of the sonographer to critically think and decipher the pancreatic lab values that are abnormal can make the difference between a correct interpretation or an incorrect one.

**O042 | Shear-wave elastography of the liver and spleen for the diagnosis of clinically significant portal hypertension in patients with chronic liver diseases**

C. Ooi; S. Lim; P. Chang; H. Lo; C. Too; S. Lau; R. Abu Bakar; H. Tan; M. Png

*Singapore General Hospital, Singapore, Singapore*

*Presenting author: C. Ooi*

General/Small Parts - Lecture Session 4, Mezzanine M4, June 22, 2019, 9:00 AM - 10:30 AM

**Introduction:** The gold standard for estimating portal hypertension and its severity is hepatic venous pressure gradient (HVPG), but it is invasive. The objective of this study was to determine the diagnostic value of liver and spleen shear wave elastography (L-SWE, S-SWE) in predicting clinically significant portal hypertension (CSPH) using HVPG as the gold standard. The secondary objective was to determine the possible association of L-SWE and cirrhosis.

**Methods:** This prospective study enrolled 47 consecutive chronic liver disease (CLD) patients who presented with clinical suspicion of PH. The L-SWE and S-SWE scores were analysed against the HVPG using a Receiver Operating Characteristic (ROC) curve. Subgroup analysis was performed in patients who underwent liver biopsy (LB) to evaluate the possible relation of L-SWE and cirrhosis.

**Results:** The mean L-SWE and S-SWE were 17.39 ± 10.80 kPa and 33.62 ± 21.19 kPa, respectively. L-SWE and S-SWE show good correlation with HVPG ($r = 0.51$, $P < .001$; $r = 0.63$, $P < .001$, respectively). The best cut-off for L-SWE and S-SWE in distinguishing CSPH were 12.24 kPa (sensitivity 85%, specificity 71%, AUC: 0.78) and 18.22 kPa (sensitivity 85%, specificity 90%, AUC: 0.87) respectively. L-SWE significantly correlated with LB results ($N = 21$, $r = 0.71$, $P < .001$).

**Conclusion:** L-SWE and S-SWE correlate with HVPG and demonstrate similar sensitivity in diagnosing CSPH; S-SWE shows better specificity than L-SWE. L-SWE may be able to identify cirrhosis in CLD patients. Take home message: L-SWE and S-SWE may be useful non-invasive method in diagnosing CSPH and cirrhosis. Our preliminary data has important implication on clinical management of patients with CSPH without having to undertake the invasive HVPG.
O047 | Ultrasound of nerve entrapments

G. Lammers

I-Med Casey Radiology, Berwick, Australia
Presenting author: G. Lammers

Musculoskeletal - Lecture Session 5, Great Hall 2, June 22, 2019, 11:00 AM - 1:00 PM

It is well documented the many different nerve entrapments that ultrasound can visualize. This presentation will review the common entrapments with extended discussion on the actual effects of compression on nerves and why they cause pain and numbness. This will be correlated with ultrasound cases.

O048 | Ultrasound in groin and athletic pubalgia

C. Chong

IMED, Brisbane, Queensland, Australia
Presenting author: C. Chong

Musculoskeletal - Lecture Session 5, Great Hall 2, June 22, 2019, 11:00 AM - 1:00 PM

Groin pain is common in athletes, who participate in sports with use of lower abdominal muscles and the proximal musculature of the thigh. Athletic pubalgia, or ‘sports hernia,’ are primarily seen in sport activities that involve rapid acceleration and/or kicking with sudden change in direction such as soccer, ice hockey, and rugby. The sonographic appearances of multiple conditions that affect this anatomically complex area will be described and correlated with other imaging modalities.

O049 | Advanced achilles

G. Lammers

I-Med Casey Radiology, Berwick, VIC, Australia
Presenting author: G. Lammers

Musculoskeletal - Lecture Session 5, Great Hall 2, June 22, 2019, 11:00 AM - 1:00 PM

Traditionally the Achilles tendon has seen as a single tendon unit when scanned and assessed with ultrasound. Recent advances in anatomy now challenge that notion where the ultrasound can delineate between the individual sural fascicles—medial and lateral gastrocnemius and the soleus. This presentation will demonstrate the individual sural fascicles and discuss why this is important in assessment of Achilles pain. An update will be given on the role tendonosis has in Achilles pain.

O050 | UCL and Stener lesions of the thumb

A. Fleming

Queensland X-ray, Coorparoo, Australia
Presenting author: A. Fleming

Musculoskeletal - Lecture Session 5, Great Hall 2, June 22, 2019, 11:00 AM - 1:00 PM

Synopsis unavailable at time of publication.

O051 | Ultrasound assessment of the elbow

M. Clifford

IMED Radiology, Brisbane, Australia
Presenting author: M. Clifford

Musculoskeletal - Lecture Session 5, Great Hall 2, June 22, 2019, 11:00 AM - 1:00 PM

Synopsis unavailable at time of publication.

O052 | Shoulder bursitis/impingement and other causes of shoulder pain

C. Winnett

I-MED Radiology, Brisbane, Australia
Presenting author: C. Winnett

Musculoskeletal - Lecture Session 5, Great Hall 2, June 22, 2019, 11:00 AM - 1:00 PM

Synopsis unavailable at time of publication.

O053 | Carrier screening

P. McGrath

Queensland X-ray, Coorparoo, Australia
Presenting author: P. McGrath

Musculoskeletal - Lecture Session 5, Great Hall 2, June 22, 2019, 11:00 AM - 1:00 PM

Synopsis unavailable at time of publication.
**O054 | Breaking bad news**

C. Portmann  
*Queensland Ultrasound for Women, Brisbane, Australia*  
*Presenting author: C. Portmann*

Discussing how to talk about anything found on ultrasound, NIPT, and risk assessments.

**O055 | NIPT**

J. Chua  
*Mater Health, Brisbane, Australia*  
*Presenting author: J. Chua*

Synopsis unavailable at time of publication.

**O056 | Ultrasound signs for clinical abnormalities in the first trimester: Head and face**

P. Kinnane  
*Central Queensland University, Brisbane, Australia*  
*Presenting author: P. Kinnane*

Introduction: There is a current push for sonographers to diagnose abnormalities earlier than the morphological assessment at 20 weeks. This presentation will highlight ultrasound signs of abnormalities at 11-13 weeks.  
Method: The presentation will provide images showing contrast of normal and abnormal findings and include current literature reviews of markers for abnormalities.  
Results: Hopefully this presentation will improve sonographer confidence in highlighting suspected abnormalities and allow for earlier detection of abnormalities.

**O057 | Diagnosis of different congenital heart defects from the three vessel view**

A. Gooi  
*Queensland Children's Hospital, Brisbane, Australia*  
*Presenting author: A. Gooi*

Synopsis unavailable at time of publication.

**O058 | Placental pathology**

N. Robertson  
*Mater Mothers’ Hospital, Brisbane, Australia*  
*Presenting author: N. Robertson*

The placenta is an incredibly complex, albeit temporary, organ that facilitates functions critical to progression of the pregnancy and survival of the fetus. It has respiratory, nutrient supply, waste removal, immune, and endocrine roles. Ultrasound provides an opportunity to indirectly assess placental function, and this presentation will discuss these skills as well as use some case study examples of when things go wrong and how they present.

**O059 | Fetal cardiac function: Technical considerations and values in the normal fetal heart**

A. Lee-Tannock; K. Hay; S. Kumar  
1 *Mater Health Services, Brisbane, Australia*; 2 *MRI/UQ, Brisbane, Australia*; 3 *QMIR Berghofer, Brisbane, Australia*  
*Presenting author: A. Lee-Tannock*

Introduction: Assessment of fetal cardiac function can be performed by various techniques. A simple technique available of most ultrasound machines is M-mode to assess AV valve excursion. A more complex technique is strain imaging, which assesses...
changes in myocardial shape (deformation) throughout the cardiac cycle. This presentation will describe these techniques and the developed normal ranges for these parameters from 20 weeks gestation until term.

**Method:** A prospective observational study of 121 women in uncomplicated pregnancies assessed every 4 weeks from 20 weeks gestation until term. Fetal cardiac assessment included measurement of TAPSE and MAPSE (tricuspid and mitral annular plane systolic excursion). Offline analysis of an acquired cine loop was also performed using velocity vector imaging (VVI) to calculate longitudinal strain and strain rate.

**Results:** Results to date will be presented showing the relationship between gestational age and these parameters for normal fetuses.

**Conclusions:** It is feasible to perform fetal cardiac function assessment from 20 weeks gestation to term. TAPSE and MAPSE are simple to perform. Strain imaging is dependent on good B‐mode imaging quality and requires specialised post processing software. Both techniques can be used to assess fetal cardiac function and could allow for identification of fetuses with cardiac dysfunction.

**Take home message:** Fetal cardiac function assessment can be performed by various techniques. Normal reference ranges have been developed and these may be of use in assessing fetuses at risk of cardiac dysfunction in pregnancies complications such as maternal obesity, diabetes, and complicated twin pregnancies.

**O066 | Varicose veins**

D. Coghlan

*Precision Vascular Imaging, Brisbane, Australia*

*Presenting author: D. Coghlan*

Vascular - Lecture Session 5, Mezzanine M4, June 22, 2019, 11:00 AM - 1:00 PM

Synopsis unavailable at time of publication.

**O067 | Chronic DVT, a frequently missed entity**

M. Necas

*Tristram Clinic, Hamilton, New Zealand*

*Presenting author: M. Necas*

Vascular - Lecture Session 5, Mezzanine M4, June 22, 2019, 11:00 AM - 1:00 PM

Chronic DVT is frequently missed by experienced sonographers. Why is that? It's because we don't look for it. Simply put, our typical lower extremity venous examination is simple, crude and specifically tailored to identify acute DVT, not chronic. General sonographers are not trained to recognise the clinical and ultrasound signs of chronic DVT, which may be very subtle in some patients. For instance, compression sonography will easily miss fibrin webs and strands which may tether venous valves, contribute to deep venous insufficiency and lead to post-thrombotic syndrome with serious clinical implications for the patient if recognise and untreated. In this presentation, we will review the B-mode, colour Doppler, and spectral Doppler features of chronic DVT. We will also discuss how to modify the existing protocols to be more effective at identifying chronic DVT.

**O062 | Morphology within the small saphenous vein**

I. Concepcion

*Royal Prince Alfred Hospital, Sydney, Australia*

*Presenting author: I. Concepcion*

Vascular - Lecture Session 5, Mezzanine M4, June 22, 2019, 11:00 AM - 1:00 PM

Phlebosclerosis is the thickening and hardening of the venous wall. Hardening of the arteries has been well defined; however, much less is known about its venous counterpart. To date, definition, aetiology, pathogenesis, and histology of phlebosclerosis are still debatable. Tzogias et al (2011) concluded that despite the confusing terminology and limited scientific data, phlebosclerosis should be regarded as a distinct clinical entity. On the other hand, Leu et al (1991) stated that the findings of their study showed that phlebosclerosis per se cannot be considered as a disease entity but represents a disorder that occurs in a majority of aged subjects. Its prevalence and clinical significance may be underrated. Future investigation towards the better description of the term and the recognition of its true prevalence, distribution and clinical significance is merited (Tzogias et al, 2011, and Panetta et al, 1992).

This presentation aims to describe phlebosclerosis based on journal articles and our findings, focusing on the small saphenous vein, with the goal to help define wall thickening versus thrombus.

**O063 | Sonographic appearances following venous cyanoacrylate/thermal ablation**

R. Magee

*Sunshine Coast Vascular, Buderim, Australia*

*Presenting author: R. Magee*

Vascular - Lecture Session 5, Mezzanine M4, June 22, 2019, 11:00 AM - 1:00 PM

Synopsis unavailable at time of publication.
O064 | May-Thurner syndrome

C. Jansen; J. Cox

Deakin University, Waurn Ponds, Australia
Presenting author: C. Jansen

Vascular - Lecture Session 5, Mezzanine M4, June 22, 2019, 11:00 AM - 1:00 PM

Introduction: Requests for leg vein Doppler ultrasound are frequent. Deep Venous Thrombosis (DVT) is often found. How often though, do we consider the cause or the possibility of a syndrome? May-Thurner Syndrome is a not infrequent cause of left leg DVT. We present a case study, discussing the pathogenesis, multi-modality diagnosis, and subsequent treatment pathway, of this disease process.

Methods: A 42-year-old female presented to the Emergency Department with increasing left leg pain, swelling, and discoloration. An ultrasound examination was requested, and extensive clot was identified from the knee crease extending up into the external iliac vein. Further evaluation by CT Venography confirmed the diagnosis of May-Thurner Syndrome.

Results: May-Thurner syndrome, also known as Iliac Vein Compression Syndrome, occurs as a result of Left Common Iliac Vein compression against the lower lumbar vertebrae by the overlying Right Common Iliac Artery. Virchow first noted this compression syndrome in 1851. He also noted that DVT was five times more likely to occur in the left leg compared to the right. In 1958, May and Thurner further described the pathogenesis.

Conclusion: May-Thurner Syndrome affects women more often than men in a 5:1 ratio, with diagnosis most prevalent in the second or third decade of life. It is a reasonably common cause of left lower limb DVT. Take Home Message: When checking for DVT, it is important for sonographers to be aware of, and recognise, the potential for this syndrome, so that the correct diagnosis is made and appropriate treatment is given.

O065 | Abdominal venous obstructions and venous stenting

J. Maunder

Vascular Solutions, Subiaco, Australia
Presenting author: J. Maunder

Vascular - Lecture Session 5, Mezzanine M4, June 22, 2019, 11:00 AM - 1:00 PM

Abdominal venous duplex intervention has become more and more common over the past decade, with patients now being stented for venous compression pathology, both in the renal vein (Nutcracker) and in the common iliac veins (May-Thurner Syndrome). We are attempting to determine if these stenting procedures result in improved venous outflow and a resolution to patients' symptoms.

O066 | Affective reflection for building resilience

A. White

Griffith University, Nathan, Australia
Presenting author: A. White

Cardiac - Lecture Session 5, Plaza P3, June 22, 2019, 11:00 AM - 1:00 PM

Reflection involves the contemplation and analysis of previous actions for the purpose of improving future practice. Various models of reflection have been practised in a diverse range of professions and reflection is now widely recognised as an essential capability for a health professional to possess. However, affective reflection is often not emphasised or taught as part of the curriculum in sonographer qualifications nor is it a routine part of daily clinical life for sonographers as it is in other health professions. In addition, knowing “how to reflect” in a purposeful and meaningful manner can be an intellectually demanding task, which does not come naturally. It is well documented that those health professionals who regularly undertake affective reflection demonstrate greater clinical judgement, a stronger sense of self and professional identity, lower rates of compassion fatigue, and most importantly greater resilience.

This presentation will offer strategies on how to develop reflective skills in the affective domain as well as presenting how affective reflection can enable sonographers to develop the ability to adapt and overcome in the face of stress and adversity, ie, the concept of “thrive not just survive” and thus build resilience.

O067 | Role of echocardiography in haemodynamically unstable patients with pulmonary embolism

E. Mckinnon; A. MacIsaac; R. Allwood

St Vincent’s Hospital Melbourne, Fitzroy, Australia
Presenting author: E. Mckinnon

Cardiac - Lecture Session 5, Plaza P3, June 22, 2019, 11:00 AM - 1:00 PM

Introduction: 23-year-old morbidly obese male admitted for an elective pancrearectomy for hyperinsulinism. Transferred to Intensive Care Unit with acute respiratory failure, hypoxia, and tachycardia.

Method: Transthoracic echocardiogram (TTE) was initially ordered, followed by an urgent Transoesophageal echocardiogram (TOE). A computerized tomography pulmonary angiogram (CTPA) was performed once the patient stabilised, followed by an interventional radiological procedure and device deployment.

Results: TTE showed evidence of right heart strain. Given the instability of the patient, a TOE was performed, identifying thrombus in the right pulmonary artery, allowing initiation of aggressive therapy for PE (therapeutic Heparin infusion). Once stable, CTPA confirmed
location of the thrombus, with clot retrieval and inferior vena cava filter insertion following.

**Conclusion:** Echocardiography plays a critical role in acutely ill, unstable patients in whom haemodynamically significant PE is suspected. The use of echocardiography in patients with PE is associated with a decreased in-hospital mortality, helping prompt urgent medical therapy when necessary.

**Take Home Message:**

1. Echocardiography is a valuable tool in differentiating between massive PE and other causes of haemodynamic comprise.
2. Right heart strain is the most common sign identified on TTE associated with a PE.
3. TTE has high specificity and moderate sensitivity for signs of PE, although TOE is used to improve visualisation of thrombi in the pulmonary trunk.
4. Echocardiography should not be use as the primary means of diagnosing a PE, a multi-modality approach should be considered, along with clinical assessment of the probability of PE & patient characteristics.

**O068 | Training sonographers not picture takers**

K. Marriott¹ ²

¹Hearts 1st, Brisbane, Australia; ²QUT, Brisbane, Australia

*Presenting author: K. Marriott*

Cardiac - Lecture Session 5, Plaza P3, June 22, 2019, 11:00 AM - 1:00 PM

Synopsis unavailable at time of publication.

**O069 | Stress echo in non-coronary disease (presentation includes live scanning)**

A. Chong

*Presenting author: A. Chong*

Cardiac - Lecture Session 5, Plaza P3, June 22, 2019, 11:00 AM - 1:00 PM

Synopsis unavailable at time of publication.

**O070 | Correlation between ejection fraction/stroke volume (includes live scanning)**

A. Ng

Cardiac - Lecture Session 5, Plaza P3, June 22, 2019, 11:00 AM - 1:00 PM

Synopsis unavailable at time of publication.
**O072 | Evaluation of fatty infiltration of the supraspinatus muscle using 2D shear wave elastography: A pilot study**

S. Mackintosh, A. Young, A. Lee, J. Muirhead, J. Sim

1 Department of Anatomy and Medical Imaging, School of Medical Imaging, The University of Auckland, Auckland, New Zealand; 2 Pacific Radiology Group, Wellington and Manawatu, New Zealand; 3 Department of General Practice and Rural Health, Dunedin School of Medicine, University of Otago, Dunedin, New Zealand; 4 Section of Epidemiology and Biostatistics, School of Population Health, The University of Auckland, Auckland, New Zealand

**Presenting author:** S. Mackintosh

**Musculoskeletal - Lecture Session 6, Great Hall 2, June 22, 2019, 2:00 PM - 3:30 PM**

**Introduction:** Significant fatty infiltration of the supraspinatus muscle is an important prognostic indicator for the likelihood of supraspinatus tendon repair failure. The current gold standard for fatty infiltration evaluation is MRI. 2D-SWE has the ability to quantitatively assess muscle stiffness. This presentation showcases a pilot study comparing 2D-SWE with the gold standard of MRI fatty infiltration grading.

**Method:** 2D-SWE measurements were prospectively obtained in 154 shoulders of participants presenting for shoulder MRI examinations. 2D-SWE measurements were obtained in the anterior and posterior aspects in the superficial half of the supraspinatus muscle and compared to MRI Goutallier grading of fatty infiltration as assessed by three observers. Region of interest measurements were placed within the elastogram (a) randomly, (b) at the highest colour coded region, and (c) within the most common colour code.

**Results:** T test reveals a statistically significant difference (P = .002) between the mean of eight randomly placed 2D-SWE samples with Goutallier 1 (Mean shear wave velocity (SWV) = 2.49) and 2 (mean SWV = 2.24). Although the difference was statistically significant, the large overlap of the SWV distributions between Goutallier grades 1 and 2 indicates SWV is a poor predictor of Goutallier grading.

**Conclusion:** Random SWV sampling throughout the superficial supraspinatus muscle best correlates with MRI Goutallier grading but lacks accuracy.

**Take home message:** 2D-SWE shows promise for evaluation of fatty infiltration; however, the described methodology does not supersede MRI as the gold standard.

**Ethics Approval:** University of Auckland Human Participants Ethics Committee ref no.018214 exp 28/11/19

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**O073 | Simplifying wrist ultrasound**

S. O’Brien

Hunter Imaging Group, Newcastle, Australia

**Musculoskeletal - Lecture Session 6, Great Hall 2, June 22, 2019, 2:00 PM - 3:30 PM**

**Introduction:** Ultrasound is an excellent tool in the assessment of anatomy and pathology of the wrist. While wrist ultrasound can seem overwhelming and complicated, there are many tips and tricks to simplify your wrist protocol. There are many structures and pathologies to assess when performing a wrist ultrasound, adequate training, and a protocol can ensure all these structures are assessed for pathology.

**Method:** Implementing a detailed department protocol assessing wrist anatomy with a high frequency linear array transducer for the highest quality imaging possible. Utilising both still imaging and dynamic imaging allows for a detailed examination of the wrist.

**Results:** Use of a protocol and sufficient training of sonographers in the anatomy and structures that should be assessed when scanning the wrist eliminates errors and mistakes and ensures that all anatomy and pathology is assessed. Taking a logical approach to scanning of the wrist can make examining the wrist with ultrasound easier to understand.

**Conclusion:** Wrist anatomy, while complex and pathology, sometimes difficult to assess taking a logical approach, and implementing a thorough department protocol can help in simplifying wrist ultrasound. This allows for an excellent assessment of anatomy and pathology of the wrist. The ability of ultrasound to utilise dynamic imaging allows for the assessment of pathology as the patient moves their wrist.

**Take home message:** Wrist anatomy and pathology can be complicated, the scanning of the wrist with ultrasound doesn’t have to be. Implementing a protocol can help simplify a complicate examination.

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**O074 | The effect of subacromial cortisone injections on pain relief for patients with bursitis and rotator cuff tendon tears**

T. Maligaspe; P. Lombardo; M. Schneider

1 MIA Radiology, Melbourne, Australia; 2 Monash University, Clayton, Clayton Campus, Australia

**Presenting author:** T. Maligaspe

**Musculoskeletal - Lecture Session 6, Great Hall 2, June 22, 2019, 2:00 PM - 3:30 PM**

**Introduction:** Ultrasound guided shoulder subacromial cortisone injections are amongst the most common type of pain relief procedure carried out in radiology departments across Australia; however, there is a lack of scientific evidence to support the effectiveness of these injections on pain relief in patients with rotator cuff tendon tears. There are also reported contraindications
to the administration of cortisone in these patients with rotator cuff tears. Our aim was to compare the pain relief experienced by patients with isolated bursitis to those with rotator cuff tears following ultrasound guided subacromial cortisone injection.

**Methods:** One-hundred consecutive patients with acute shoulder pain (less than six months duration) were recruited for this retrospective case-control study. Fifty patients had confirmed isolated bursitis (control group), and the other fifty had confirmed rotator cuff tendon tears (case group). Each patient received a before and after injection SPADI score.

**Results:** There was a statistically significant reduction in pain after cortisone injection in the bursitis cohort ($P < .001$) but not in the rotator cuff tendon tears group ($P = .07$). The mean SPADI scores between the two groups were also significantly different ($P < .001$).

**Conclusion:** This study has demonstrated that ultrasound guided subacromial cortisone injections can provide significant pain relief in patients with isolated bursitis but not in patients with a rotator cuff tendon tear.

**Take home message:** Our results indicate the importance of having a diagnostic test such as an ultrasound to confirm the presence of a tear when cortisone injection is considered.

**O075 | Common MSK injuries and assessment from emergency**

M. Martin

*Presenting author: M. Martin*

Muscloskeletal - Lecture Session 6, Great Hall 2, June 22, 2019, 2:00 PM - 3:30 PM

Synopsis unavailable at time of publication.

**O076 | Sonographers mental health**

B. Mason

*Sono's Safety in the Workplace, North Ryde, Australia*

*Presenting author: B. Mason*

Non-Clinical - Lecture Session 6, Mezzanine M3, June 22, 2019, 2:00 PM - 3:30 PM

As our profession grows to heights we could never have imagined, it is imperative that we remember to look after our bodies and also to look after our mental health as well.

We love our jobs; we strive to be the best of the best in our field. We achieve that many times per day. With this comes pressure, perceived and real. How do we cope, how do we arm ourselves with strategies to cope every day? That will be the topic for discussion in my presentation.

**O077 | Perinatal mood disorders—Understanding antenatal anxiety and depression**

G. Foster

*Brisbane Centre for Postnatal Disorders, Brisbane, Australia*

*Presenting author: G. Foster*

Non-Clinical - Lecture Session 6, Mezzanine M3, June 22, 2019, 2:00 PM - 3:30 PM

Pregnancy is often perceived as one of the most beautiful times in a woman’s life; however, it is also a time of emotional, psychological, and physiological change. Up to 1 in 5 Australian women experience anxiety during pregnancy and up to 1 in 10 will experience depression. It is common to experience anxiety and depression at the same time. The symptoms of anxiety and depression can be highly distressing for the pregnant woman and can interfere with her relationship with her partner, her confidence, and her ability to imagine herself as a mother. Identifying the illness as early as possible will ensure the best possible outcome for the mother, baby, and the family unit. Introducing mental health discussion early, as part of routine obstetric care, reduces stigma and increases the chance that problems will be identified early. The causes, signs, and symptoms of antenatal anxiety and depression will be presented.

**O078 | Peer reviewing for the Sonography journal**

G. McLean

*Australasian Sonographers Association, Clayton, Melbourne, Australia*

*Presenting author: G. McLean*

Non-Clinical - Lecture Session 6, Mezzanine M3, June 22, 2019, 2:00 PM - 3:30 PM

Peer reviewing is the process of having an author’s manuscript assessed by their peers, who are experts in the area of research. The aim of peer review is to improve the quality of a submitted manuscript through reviewers suggesting improvements and assessing whether the work is not only of interest to readers but also valid research which is worth publishing. The review process takes place prior to the work being published and it is hoped that this leads to an improvement in the manuscript.

This presentation will outline the practical components of reviewing using the Sonography online manuscript system (ScholarOne). How to approach reviewing, tips for writing the review report and when to suggest accepting or rejecting a manuscript will be covered.
O080 | TBC
F. Boyle

Presenting author: F. Boyle

Non-Clinical - Lecture Session 6, Mezzanine M3, June 22, 2019, 2:00 PM - 3:30 PM

Synopsis unavailable at time of publication.

O081 | Pitfalls of the unwary sonographer
T. Hartshorne

University Hospitals of Leicester, Leicester, United Kingdom

Presenting author: T. Hartshorne

Vascular - Lecture Session 6, Mezzanine M4, June 22, 2019, 2:00 PM - 3:30 PM

Every sonographer no matter what their specialty will experience a run of difficult scans and equivocal findings, which can be frustrating. However, there can be situations when things go badly wrong resulting in misdiagnosis and potential harm to the patient. Time pressure, overestimation of personal experience, working at the edge of specialist expertise, poor reporting or simply “cutting corners,” and not following protocols are some of the factors that contribute to diagnostic errors. The aim of this presentation is to discuss some of the common diagnostic pitfalls in vascular ultrasound scanning with tips on how to avoid these. The anatomical regions covered include the popliteal fossa, groin, abdomen, and carotid arteries.

O082 | Carotid duplex ultrasound: Caveats and complexities
M. Necas

Tristram Clinic, Hamilton, New Zealand

Presenting author: M. Necas

Vascular - Lecture Session 6, Mezzanine M4, June 22, 2019, 2:00 PM - 3:30 PM

Carotid duplex is one of the most common vascular imaging investigations. However, after 30 years in clinical use, carotid duplex still remains a controversial topic. Why do it? What were the differences between NASCET and ECST and how does the legacy affect our imaging today? What is the correct technique? What criteria should I use? How do I report a large diseased remodelled bulb with no haemodynamically significant stenosis? How do I modify my approach in unusual clinical scenarios? Every paper says my criteria should be validated, how do I do that? To find out the answers to these questions and many more, join us for this presentation.

O083 | A more holistic approach to improve AVF scan quality
D. Oomens

Norwest Specialist Vascular Services, Bella Vista, NSW, Australia

Presenting author: D. Oomens

Vascular - Lecture Session 6, Mezzanine M4, June 22, 2019, 2:00 PM - 3:30 PM

With the increasing need for chronic renal replacement due to renal failure in our communities, there has been a large increase in the number of patients with arterio-venous fistula. These fistulas are the patient’s lifeline and ultrasound plays an important role in providing information of the well-being of the fistula. It is the type of study that may be only occasionally performed in a practice, and it is difficult to feel confident with your skills without some good foundational knowledge. This lecture will cover ways in which sonographers can optimise their evaluation of the fistula with increased knowledge of the fistula circuit, what the dialysis unit can provide in background information to help guide the study and the addition of physical assessment to complement the ultrasound findings. Putting all of this together can allow sonographers to feel more confidence in performing these very technical studies.

O084 | Amyloid and the heart
P. Mollee

Princess Alexandra Hospital, Woolloongabba, Australia

Presenting author: P. Mollee

Cardiac Live Scanning - Session 6, Plaza P3, June 22, 2019, 2:00 PM - 3:30 PM

Amyloidosis is a term for a group of disorders characterised by abnormal protein folding resulting in aggregation and accumulation of protein fibrils in organs and tissues of the body. These abnormal protein deposits (amyloid) disrupt normal tissue function leading to organ failure. There are about 30 different proteins that can cause amyloidosis. The heart is most commonly involved in AL amyloidosis where the deposits are comprised of immunoglobulin light chains and in ATTR amyloidosis where the deposits are composed of either wild-type or variant transthyretin. Cardiac amyloidosis typically presents as heart failure with preserved ejection or with arrhythmias. The presence and severity of cardiac involvement is the key determinant of prognosis highlighting the importance of early
diagnosis and initiation of therapy. In the past, therapeutic options were largely limited to supportive care; however, recent advances in treatments that target amyloid pathogenesis are altering the natural history of the disease.

**O085 | The unexpected congenital heart disease**

J. Gordon

*Queensland Children's Hospital, Brisbane, Australia*

*Presenting author: J. Gordon*

Cardiac Live Scanning - Session 6, Plaza P3, June 22, 2019, 2:00 PM - 3:30 PM

Echocardiography plays an essential role in the assessment of suspected or confirmed congenital heart disease (CHD) in children and adults. Many children with CHD now survive well into adulthood, meaning a greater knowledge and understanding of cardiac morphology, and CHD is crucially important for echocardiographers working in adult cardiology departments. Adults with known CHD are now increasingly presenting to adult cardiology practices for geographical and logistical reasons, during an acute illness or through GP referral due to loss of their regular follow-up, with echocardiography providing first-line, essential information. Whilst rare, the de novo diagnosis of congenital heart disease may also be made during these occurrences. This presentation will give a brief overview of some commonly encountered congenital heart conditions presenting in adults as well as providing echocardiography tips and tricks when scanning patients with suspected CHD.

**O086 | TBC (presentation includes live scanning)**

J. O’Leary

*Presenting author: J. O’Leary*

Cardiac Live Scanning - Session 6, Plaza P3, June 22, 2019, 2:00 PM - 3:30 PM

Synopsis unavailable at time of publication.

**O087 | Paediatric abdominal masses**

C. Brockley

*Royal Children's Hospital, Melbourne, Australia*

*Presenting author: C. Brockley*

Paediatrics - Lecture Session 8, Great Hall 2, June 23, 2019, 9:00 AM - 11:00 AM

Sonography is the imaging of choice for the initial assessment of abdominal masses in the paediatric patient and can facilitate or assist in the diagnosis of these lesions. Classification and accurate identification of the nature of an abdominal mass can be challenging due to overlapping clinical manifestations, variable sonographic features, and unfamiliarity with the pathology. Many palpable masses are clear and easy to diagnose, such as constipation, ovarian or mesenteric cysts, etc. These conditions have distinct sonographic appearances and common locations. However, entities such as malignancies can often be difficult to differentiate on sonographic features and location alone. A knowledge of the most common lesions, the clinical manifestations, and the sonographic features can enable a systematic approach to a lesion to help determine the nature and often facilitate diagnosis.

In those cases where there is an overlap of appearances and clinical symptoms, ultrasound will not always be able to provide the diagnosis; however, a detailed description of the clinical and sonographic features when combined with another modality can assist the radiologist and clinicians to make a diagnosis.

**O088 | Paediatric chest pathology**

U. Shetty

*Presenting author: U. Shetty*

Paediatrics - Lecture Session 8, Great Hall 2, June 23, 2019, 9:00 AM - 11:00 AM

Synopsis unavailable at time of publication.

**O089 | Paediatric gynaecology**

M. Woolgar

*Regional Imaging, Devonport, Australia*

*Presenting author: M. Woolgar*

Paediatrics - Lecture Session 8, Great Hall 2, June 23, 2019, 9:00 AM - 11:00 AM

This presentation will aim to cover the following:

- To describe the sonographic appearances of the normal anatomy of the paediatric pelvis as it changes with maturity.
- Provide an overview of scanning techniques and equipment settings.
- Finally, to describe the ultrasound appearances of some common pathologies
**O090 | Biliary atresia—Gross misconduct of the hepatobiliary system**

C. Morrissey$^{1,2}$

$^1$Queensland Children’s Hospital, Brisbane, Australia; $^2$I-MED, Caboolture Public Hospital, Caboolture, Australia

Presenting author: C. Morrissey

Paediatrics - Lecture Session 8, Great Hall 2, June 23, 2019, 9:00 AM - 11:00 AM

Biliary atresia is one of the most common causes of infant end-stage liver disease and a leading paediatric indication for liver transplant. This talk will discuss the diagnosis, treatment, and outcomes of biliary atresia, with a focus on the key roles that ultrasound provides.

**O091 | Haemangiomas**

D. Lisle

Brisbane Private Imaging, Brisbane, Australia

Presenting author: D. Lisle

Paediatrics - Lecture Session 8, Great Hall 2, June 23, 2019, 9:00 AM - 11:00 AM

Vascular birthmarks may be classified into two broad categories: infantile haemangiomas and vascular malformations. Infantile haemangiomas and vascular malformations have vastly differing clinical outcomes and are amenable to different treatments. Accurate classification is essential for the provision of prognosis and planning of management. Incorrect terminology is still common; in particular the term “haemangioma” is commonly misused. Most vascular birthmarks may be diagnosed and classified with accurate history and examination. Imaging may be required to assist in the diagnosis of lesions that are indeterminate. Imaging is also used to document the extent of deep or complex lesions. Ultrasound is the initial investigation of choice for the classification of vascular lesions. MRI is useful for large complex lymphatic malformations and for the documentation of deep extension of lesions into areas such as the chest, particularly where surgery is contemplated. Imaging may also be used to guide therapies.

**O092 | “Where the wild things are”—Tips and tricks on how to survive and get your patient to thrive (and maybe even cooperate!) in the paediatric ultrasound room**

C. Morrissey$^{1,2}$

$^1$Queensland Children’s Hospital, Brisbane, Australia; $^2$I-MED, Caboolture Public Hospital, Caboolture, Australia

Presenting author: C. Morrissey

Paediatrics - Lecture Session 8, Great Hall 2, June 23, 2019, 9:00 AM - 11:00 AM

**Synopsis unavailable at time of publication.**

**O093 | Fetal growth restriction—Diagnosis and management**

S. Kumar

$^1$Queensland Children’s Hospital, Brisbane, Australia; $^2$I-MED, Caboolture Public Hospital, Caboolture, Australia

Presenting author: S. Kumar

Obstetrics - Lecture Session 8, Mezzanine M3, June 23, 2019, 9:00 AM - 11:00 AM

Synopsis unavailable at time of publication.

**O094 | Should we use the fetal CPR to predict adverse perinatal outcomes**

S. Kumar

$^1$Queensland Children’s Hospital, Brisbane, Australia; $^2$I-MED, Caboolture Public Hospital, Caboolture, Australia

Presenting author: S. Kumar

Obstetrics - Lecture Session 8, Mezzanine M3, June 23, 2019, 9:00 AM - 11:00 AM

Synopsis unavailable at time of publication.

**O096 | Fetal cardiac**

A. Lee-Tannock$^{1,2}$

$^1$Mater Health Services, Brisbane, Australia; $^2$MRI/UQ, Brisbane, Australia

Presenting author: A. Lee-Tannock

Obstetrics - Lecture Session 8, Mezzanine M3, June 23, 2019, 9:00 AM - 11:00 AM

Transposition of the great arteries: detection rates, features, and prognostic factors on fetal echocardiography and postnatal imaging pre and post corrective surgery.
O097 | Maternal congenital infections

E. Cavanagh

Mater Centre for Maternal Fetal Medicine, South Brisbane, Australia
Presenting author: E. Cavanagh

Obstetrics - Lecture Session 8, Mezzanine M3, June 23, 2019, 9:00 AM - 11:00 AM

Synopsis unavailable at time of publication.

O098 | Imaging the posterior fossa

L. Bligh

Presenting author: L. Bligh

Obstetrics - Lecture Session 8, Mezzanine M3, June 23, 2019, 9:00 AM - 11:00 AM

Synopsis unavailable at time of publication.

O099 | Sound advice: Interesting case studies

J. Durant

Specialty Training & Advanced Review Sonography Services, Greater Minneapolis-St. Paul Area, USA
Presenting author: J. Durant

General/Small Parts - Lecture Session 8, Mezzanine M4, June 23, 2019, 9:00 AM - 11:00 AM

This presentation will be reviewing the importance of obtaining good clinical history to help the sonographer and physician interpret the sonogram. It will also stress the importance of knowing basic anatomy and vasculature to decipher the pathology present. With so many variables and differentials of pathophysiologic disease processes, it is necessary for the sonographer to think outside the box when things aren’t as simple as they seem.

O100 | Ultrasound and liver disease—HCC surveillance and beyond

R. Skoien

Presenting author: R. Skoien

General/Small Parts - Lecture Session 8, Mezzanine M4, June 23, 2019, 9:00 AM - 11:00 AM

Synopsis unavailable at time of publication.

O101 | Shear wave elastography basics and liver applications

S. O’Hara

SKG Radiology, Perth, Australia
Presenting author: S. O’Hara

General/Small Parts - Lecture Session 8, Mezzanine M4, June 23, 2019, 9:00 AM - 11:00 AM

Shear wave elastography is a new technology now provided by many ultrasound vendors. This lecture will outline some of the basic physics and principles for shear wave elastography and considerations for its use in the clinical environment. Applications of this technology and its use in liver disease will also be discussed.

O102 | The role of ultrasound in the diagnosis of penile fracture

D. Napier

Royal Brisbane and Women’s Hospital, Brisbane, Australia
Presenting author: D. Napier

General/Small Parts - Lecture Session 8, Mezzanine M4, June 23, 2019, 9:00 AM - 11:00 AM

Penile fracture is considered to be a rare entity and as such a gap in knowledge exists in regards to attaining an accurate ultrasound diagnosis. Considered to be a urological emergency, correct diagnosis is essential so as to implement the correct management pathway and thus minimise the potential long-term sequelae that can result from misdiagnosis. It is important to acknowledge however that benign pathological entities resulting from the same mechanism of injury may display a similar clinical appearance to penile fracture and as such will require less aggressive treatment. Thus, the role of ultrasound in the diagnosis if penile fracture should emphasise discrimination between a true and false penile fracture, with the grading of different fracture types only secondary. A comprehensive ultrasound examination that will result in the facilitation of appropriate medical intervention and thus contribute to a favourable patient outcome.

O103 | Brachial plexus: Injuries and assessment. What can we see? (will include live scanning)

M. Cresswell

St Paul’s Hospital, Vancouver, Canada
Presenting author: M. Cresswell

General/Small Parts - Lecture Session 8, Mezzanine M4, June 23, 2019, 9:00 AM - 11:00 AM

Synopsis unavailable at time of publication.
O104 | Lateral foot and ankle; lateral ligaments beyond the lateral ligament

M. Fenech
CQU, Brisbane, Australia
Presenting author: M. Fenech

Musculoskeletal - Lecture Session 9, Great Hall 2, June 23, 2019, 12:00 PM - 1:30 PM

Synopsis unavailable at time of publication.

O105 | Ultrasound assessment of the anterior thigh

G. Lammers
I-Med Casey Radiology, Berwick, VIC, Australia
Presenting author: G. Lammers

Musculoskeletal - Lecture Session 9, Great Hall 2, June 23, 2019, 12:00 PM - 1:30 PM

This presentation will overview the ultrasound anatomy of the anterior thigh from hip to knee. As muscle/tendon tear is one of the most common presentations for ultrasound, discussion will include the importance of grading muscle and tendon tears correctly for best patient outcomes. Presentation will conclude with several rare interesting cases.

O106 | Sonography in portal hypertension—Diagnosis and treatment

M. Zelesco
Fiona Stanley Hospital, Perth, Australia
Presenting author: M. Zelesco

General/Small Parts - Lecture Session 9, Mezzanine M3, June 23, 2019, 12:00 PM - 1:30 PM

Portal hypertension is a common clinical syndrome, characterised by an increase in portal venous pressure. However, direct portal venous pressure is only measured in a minority of patients, and gastroenterologists and interventional radiologists are seeking non-invasive assessment tests of this growing patient group. The goals of ultrasonic assessment should be

1. Make a diagnosis
2. Establish a cause (pre-, intra-, and post sinusoidal)
3. Evaluate the risk of complications

Multiple gray scale and Doppler findings have been proposed as markers of underlying portal hypertension. Once diagnosed, patients may proceed to undergoing a TIPSS (trans jugular intrahepatic portosystemic shunt).

This talk discusses the merits and the limitations of diagnosing portal hypertension and the subsequent monitoring of TIPSS with ultrasound.

O107 | Thyroid

D. McLeod
Presenting author: D. McLeod

General/Small Parts - Lecture Session 9, Mezzanine M3, June 23, 2019, 12:00 PM - 1:30 PM

Synopsis unavailable at time of publication.

O108 | Abnormal lymph nodes: Size does not matter, morphology is everything

M. Necas
Tristram Clinic, Hamilton, New Zealand
Presenting author: M. Necas

General/Small Parts - Lecture Session 9, Mezzanine M3, June 23, 2019, 12:00 PM - 1:30 PM

Synopsis unavailable at time of publication.
The National Abdominal Aortic Aneurysm Screening Programme (NAAASP) was implemented in England in 2009 with the aim of reducing aneurysm related rupture and mortality. Similar programmes have been introduced in Scotland Wales and Northern Ireland. Men in their 65th year are invited for ultrasound screening, and to date, two million men have been invited, and over 1.5 million men screened with 5000 found to have a large AAA referred for surgery. Operating an ultrasound-based screening programme with sonographers would place a considerable burden on an already limited workforce. Therefore, NAAASP employs screening technicians, many without previous medical backgrounds who are trained specifically to image and measure the diameter of the aorta. This has required careful implementation including training, performance monitoring, reaccreditation, and quality assurance of ultrasound images.