The Literature

Scanning the journals

Maternal history of vasa previa across gestation using a screening protocol
Rebarber A, Dolin C, Fox N, Klauser C.K, Sultzman DH, Roman AS Journal of Ultrasound in Medicine 2014; 33: 141 – 47
From a total of 27,573 patients, vasa previa, defined as a fetal vessel within 2 cm of the internal cervical os on transvaginal sonography, was seen in 31 cases. This gives an incidence of 1.1 per 1000.
Twenty-nine cases were available for analysis of which 5 had migration and resolution. When the diagnosis was made during the second trimester (<26 weeks) 5 of 21 resolved by term. None resolved when the diagnosis was made in the third trimester.
Using their standardised screening for vasa previa diagnosis, a 100% survival rate was achieved.
Before reading this article I was not aware that when we diagnose vasa previa in the second trimester almost 25% will resolve.

Spinal curvature measurements by tracked ultrasound snapshots
Ungi T, King F, Kempston M, Keri Z, Lasso A, Mousavi P, Rudan J, Borschneck DP, Fichtinge T Ultrasound in Medicine & Biology; 40 (2): 447 – 54
This Canadian paper described an ultrasound system for measurement of spinal curvature with the help of spatial tracking of the ultrasound transducer.
Using radiographic imaging as a comparison in a model of kyphoscoliosis they found that sonography performs well. If further studies confirm their results ultrasound may replace radiography because of cost, portability, tolerability and reproducibility. Particularly in adolescents, avoidance of x-ray diagnosis in monitoring kyphoscoliosis would reduce the risk of breast cancer development in girls.

Detailed in utero ultrasound description of 30 cases of congenital cytomegalovirus infection
Picone O, Teissier N, Cordier A.G, Vauloup-Fellous C, Adle-Biassette H, Martinovic J, Senat MV, Ayoubi J.M. and Benachi A Prenatal Diagnosis 2014 Feb 13 doi: 10.1002/pd. 4340 (Epub ahead of print)
This retrospective study of ultrasound scans in 69 cases of Congenital Cytomegalovirus Infection (CMV) revealed that less than half had ultrasound abnormalities (30/69 = 45.3%).
Of the 30 cases, 19 had extracerebral anomalies. There were 10 cases of hyperechogenic bowel and nine cases of intrauterine growth retardation. Twenty-four had cerebral anomalies, 16 had both extra – and cerebral features. The main cerebral anomalies were brain calcification in 12 cases and occipital horn anechogenic cavities. The difficulty in diagnosis is that their main ultrasound findings are not specific to CMV.
The authors conclude that better knowledge of ultrasound findings linked to CMV infection will improve our pick-up rate. No argument with that – especially as most of us here see so few cases, which is why this is a paper worth reading.

Main congenital cerebral anomalies; how prenatal imaging aids counseling
Garel C, Moutard ML Fetal Diagnosis Ther 2014 Feb 27. (Epub ahead of print)
This is a good review of a difficult area for most of us, bearing in mind that prenatal ultrasound diagnosis is not 100% accurate. The common lesions: corpus callosum dysgenesis, absent septum pellucidum, localised ischemic-haemorrhagic parenchymal lesions, megacysterna magna, Blake's pouch cyst, posterior fossa arachnoid cyst and Dandy-Walker malformation are all illustrated with differential diagnoses discussed. Prenatal counseling in many of these anomalies is a challenge but the authors’ expertise and experience in scanning and counseling shed some light for the general sonographer.

Sonography of acne vulgaris
Wortsman X, Claveria P, Valenzula F, Molina M.T, Wortsman J Journal of Ultrasound in Medicine 2014, 33: 93 – 102
The title caught my eye immediately! Another use for ultrasound!
Although acne vulgaris (a dreadful name!) is very common, as anyone with teenagers can attest, knowledge is limited about its aetiology, treatment resistance and resolution.
Sonography might play a role in defining lesion severity and in treatment selection.
This nicely illustrated paper from Santiago puts a strong case for ultrasound’s use in acne management, especially as it can pick up clinically occult involvement. The use of a scoring system such as the one the authors used may be an additional advantage.

Evaluation of the efficacy of endovascular treatment of pelvic congestion syndrome
Hocquelet A, le Bras Y, Balian E, Bouzgarrou M, Meyer M, Rigon G, Grenier N Diagnostic Interv Imaging 2013 Oct 30 S2211 – 5684 (Epub ahead of print)
For a long time, I was a pelvic congestion syndrome (PCS) denier but am now convinced it is a clinical entity for which ultrasound can be used in diagnosis and management.
This retrospective French study included 33 women who had PCS diagnosed by either transabdominal Doppler ultrasound and/or pelvic MRI. Treatment by pelvic venous embolisation was monitored by a visual analog scale. After treatment, 20 patients were asymptomatic (mean follow up of two years 2 months) 11 had partial relief and 2 still had the same symptoms. The incidence of dyspareuia was significantly reduced.
So, to conclude: PCS is real, it often causes severe discomfort and in the majority of women it can be cured by embolisation.

Safety, efficiency and prognostic factors in endovascular treatment of pelvic congestion syndrome
Nasser F, Cavalcante R.N, Affonso B.B, Messina ML, Carnevale FC, de Gregorio MA International Journal of Gynaecology & Obstetrics 2014, 33: 93 – 102
This Spanish study adds to the knowledge of efficacy of transcatheter embolisation using coils for pelvic congestion syndrome. In 113 women in the study they claim 100% technical and clinical success.
Like the previous authors, they used a visual analog scale to evaluate pain score before and after treatment.
At 12 months follow up 53% of patients were symptom free and 47% had pelvic pain reduction. If women had urinary urgency, lower limb symptoms or vulvar and leg varicosities treatment was less likely to be successful.

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