Conclusions DAH is an uncommon, life-threatening complication of dengue Fever. A high index of suspicion and early institution of supportive treatment in form of blood component transfusion, shock management and mechanical ventilation are critical to successful management of such patients.

British Association of Paediatricians in Audiology

1588 AUDIOLOGICAL COMPLICATIONS OF MENINGITIS IN CHILDREN

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Background Bacterial meningitis is the commonest cause of acquired deafness (Fortnum, 1992) resulting in permanent sensorineural hearing loss (SNHL). Therefore, early audiological assessment is essential (Rahko et al, 1984).

Currently, *Streptococcus pneumoniae* and *Neisseria meningitidis* are the most common organisms responsible for bacterial meningitis (Kutz et al, 2006). Labyrinthine ossification, a significant and rapid otological emergency, is more common after infection with *Streptococcus pneumoniae* (Douglas et al, 2008).

Objectives The primary objective was to determine the post-meningitis auditory complications.

The secondary objectives were to determine the pathogen, neuro-radiological changes and to ascertain the relationship with the auditory deficit.

Methods This was a retrospective case-note audit of children who had at least 1 audiological assessment in a tertiary children's hospital in UK following referral to the Audiovestibular Department with suspected or confirmed meningitis and/or septicaemia. Referrals made within 24-months (1st January 2018 to 31st December 2019) were considered. Patients that did not have an audiological assessment (e.g. child returned home and out of catchment area) were excluded. The audiological results (degree, type and laterality of deafness), microbiological details, radiological changes and audiological intervention were recorded.

Results During the 24-months, 44 children had at least one audiological assessment following suspected or confirmed meningitis and/or sepsis. The majority were in-patient ward referrals (n=38, 86%) and others were from various referral sources (General Paediatric clinic, Newborn Hearing Screening Programme, Speech Therapist and Health Visitor). The age on admission ranged from 2days (2 children) to 16 years. 9 (20%) babies were <1 month old and 27 (61%) were male.

As per British Society of Audiology guidelines, 39 children (89%) had satisfactory hearing on soundfield or ear-specific tests. 2 children had bilateral severe-to-profound SNHL. Further 2 had unilateral SNHL. One had unilateral conductive hearing loss due to underlying otitis media with effusion.

Of the two with bilateral SNHL, one had *Neisseria meningitidis* and bilateral significant labyrinthine ossification on neuro-radiology. The other had *Streptococcus parasanguinis* and intracranial fluid collections over the left cerebellar

hemisphere and right frontal lobe. They both eventually underwent cochlear implantation for hearing rehabilitation.

The microbiological profile of the cohort included *Neisseria meningitidis* (including the above child) (n=15, 34%), *Enterovirus* (n=8, 18%), *Streptococcus agalactiae* (n=6, 14%), *Streptococcus pneumoniae* and *E. coli* (4 each), culture negative but neutrophilia in cerebrospinal fluid samples (n=3) and 1 each with *Haemophilus influenzae*, *Streptococcus parasanguinis* (above bilateral SNHL), *Streptococcus gallalyticus* and unknown organism.

Post-meningitis neuro-radiological changes were noted in about 30% of children. These included bilateral labyrinthine ossification (n=1, above child), non-cystic focal lesions (n=5), significant intracranial fluid collections (including hydrocephalus) (n=4), subdural effusions (n=2) and gliosis (n=1).

Conclusions The most prevalent organism in our cohort was *Neisseria meningitidis* and 1 child had significant rapid cochlear ossification needing urgent cochlear implantation. Pneumococcal meningitis can result in unilateral SNHL (2 children). 30% of children had labyrinthine and intra-cranial radiological changes.

Therefore, it is vital to consider the micro-organism, radiological findings and correlate these with the audiological findings to ascertain the audiological risk and prognosis after meningitis in children.

British Association for Paediatric Nephrology

1591 URINARY ASCITES IN CHILDREN

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Background Urinary ascites (UA) is rare in children. There can be several reasons for urine leakage to peritoneum such as spontaneous rupture of bladder, a complication from surgery or trauma, and prematurity, especially in neonates. We report two cases of urinary ascites in an 11 months old and a 5 years old, with different pathologies.

Methods Case Report 1: A 11m old boy with Menke's disease presented with mild cellulitis was treated with antibiotics. He developed vomiting on the day of discharge and he was observed for 24hrs. He developed acute abdominal distention with signs of shock. His bloods revealed acute kidney injury. His abdominal imaging revealed extensive ascites. He was treated with fluid boluses and transferred to PICU. He had abdominal paracentesis which drained 400ml of clear fluid. The biochemical analysis confirmed it was urine. He had diverticulum of bladder.

Case Report 2: A 5yr old boy had appendectomy. He was observed for persisting abdominal pain following surgery. His blood revealed acute kidney injury. He had MCUG which revealed bladder leakage into peritoneum. His bladder was decompressed with catheterisation.

Results In these cases, the abnormal renal function was caused by fluids and electrolytes equilibrating across peritoneal surface, as occurs in peritoneal dialysis. In both cases the pseudo-azotaemia resolved in 24hrs with bladder decompression.

Conclusions It can masquerade as sepsis, acute abdomen and acute renal failure. A high index of suspicion is needed for early diagnosis as management is simple with good prognosis.

British Association of Perinatal Medicine and Neonatal Society

1593 VERTICAL TRANSMISSION OF COVID 19

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Background Severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) and its pandemic disease have provided unprecedented challenges to medical treatment. To date there has been little definitive evidence of vertical transmission of SARS-CoV-2 from mothers to foetuses/neonates during pregnancy and delivery. There is biological plausibility for in-utero infection of the foetus with SARS-CoV-2 virus as the virus has previously been demonstrated in placenta and amniotic fluid. Goh et al's meta-analysis reports the pooled incidence of vertical transmission as 16 per 1000 newborns.

Objectives To describe cases of Covid-19 with a very high probability of vertical transmission in a large tertiary NICU in United Kingdom

Methods Babies born to Covid positive mothers, who require NICU admission at St. Mary's Hospital, Manchester, receive their initial care in an isolation room within NICU, where all levels of neonatal care (intensive, high dependency or special care) can be provided. Following admission to the NICU isolation room, babies have a nasopharyngeal (NP) swab taken on day 1, 3 and 5 of life. The sample on day 5 is sent for rapid analysis (usually returning a result within 4 hours). If all NP swab results are all negative, the baby is moved from the isolation room on day 5 of life. Conversely, if any swabs are SARS-CoV2 positive, the baby remains in the isolation room for 14 days. We report the characteristics and clinical courses of the cases where any of baby's swabs samples tested positive for SARS-CoV-2.

Results All three babies were admitted directly to the NICU isolation room immediately after birth without physical contact with their respective parents. All hospital staff caring for the babies used full personal protective equipment including a filtering facepiece (FFP) 3 mask, gloves and apron. Reverse transcriptase polymerase chain reaction (RT-PCR) testing of the nasopharyngeal swab detected the SARS-CoV-2 virus. Indeterminate results are presumed positive with sub reportable

thresholds of viral loads. Table 1 summarises the characteristics of cases, their respective parental physical contact and first day of receiving expressed breast milk (EBM).

Two out of three babies received EBM whilst under NICU isolation. Both of these babies had indeterminate SARS-CoV2 levels, prior to the administration of EBM, therefore we do not believe breast-milk to have been the route of transmission. Fortunately, all neonatal infections with COVID-19 in these cases were mild or clinically insignificant. None of these babies were symptomatic of Covid 19 respiratory infection, although some did required respiratory support but this was in keeping with their underlying condition.

Conclusions From our single tertiary centre experience, we hypothesise that vertical transmission of COVID-19 is highly probable.

Quality Improvement and Patient Safety

1594 QI- PROMOTING TEAM BUILDING, TEACHING AND QUALITY IMPROVEMENT DURING PANDEMIC TIMES THROUGH DEPARTMENTAL TRAINEE-LED TEACHING SESSIONS

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Background We had an exciting start to our placement in Paediatric Intensive Care Unit (PICU). However, as part of the weekly plan, we did not have a dedicated session where trainees (from different specialties e.g. paediatrics, intensive care and emergency medicine), could deliver teaching. It was also felt that due to more out of hour shifts on the Covid rota, trainees had felt isolated in work and did not develop a sense of team spirit. This led to the idea of promoting trainee-led weekly teaching sessions with the multiple aims of improving teaching, improving team building amongst colleagues and obtaining work-based assessments in the consultant-supervised teaching sessions.

Objectives Our main aims were

1. to improve interaction amongst the peers
2. to promote learning from each other during these teaching sessions
3. to obtain work-based assessments through these consultant-supervised teaching sessions.

Methods After confirmation that trainees were interested, our next step was to ensure that the consultants would engage in

Abstract 1593 Table 1

	Gestation (Weeks)	Birth Weight	Main Diagnosis	Day 1 Swab	Day 3 Swab	Day 5 Swab	Other positive swabs	First day of EBM	First day of physical contact with parents
Case 1	34+5	3032g	Cyanotic congenital heart disease	Indeterminate	Positive	Positive	D18, D25	Day 2	Day 10
Case 2	37	2980g	Hypoxic ischaemic encephalopathy	Negative	Negative	Positive	D12	Day 7	Day 7
Case 3	32+5	1794g	Surfactant deficient lung disease	Indeterminate	Indeterminate	Indeterminate	D9, D12	Day 2	Day 6