A 4-year-old girl with ongoing treatment for pre-B acute lymphoblastic leukaemia (ALL) underwent routine intra-thecal chemotherapy via lumbar puncture. Two days later, she developed fever, urinary retention, severe pain at lumbar puncture site and progressive paraplegia. On examination bilateral lower limb power was 0/5 with hyporeflexia bilaterally. MRI whole spine was performed with IV gadolinium contrast demonstrated T1 high and T2 mixed intensity fluid collection in subdural and sub-arachnoid space in lower thoracic and lumbar spinal canal suggesting subdural and sub-arachnoid haematoma (Figure-1 & 2). The patient was managed conservatively. Subsequent MRI demonstrated interval reduction in the SSDH with residual intramedullary abnormal signals (Figure-3).

Spinal haematomas can be subdural or epidural and may occur due to a number of causes including bleeding diathesis, vascular malformations, anti-platelet treatment, post lumbar or cervical puncture, post spinal surgery and after trauma. Epidural haematomas are commoner; where progression of symptoms due to compression tends to be faster1. SSDH make up only 4% of all the spinal haematomas2. The most common site for SSDH is thoracic or lumbar region. Early detection and appropriate intervention is necessary to prevent damage to the spinal cord for which MRI is the modality of choice as highlighted in our case. On MRI SSDH appears as a space occupying lesion beneath dura mater and demonstrates different signal intensities on T1 and T2 weighted images depending on the age and extent of haemorrhage.

Keywords: Spinal Haematoma, Magnetic resonance imaging (MRI), Leukaemia, injury.
upon the age of the haematoma. Post lumbar puncture subdural/sub-arachnoid haematoma is a rare complication and MRI is the imaging modality for accurate diagnosis of this pathology.

Disclaimer: The author discloses no conflict of interest.

References


Figure 3: Sagittal T2 spine image showing interval decrease in thecal sac haematoma and mass effect on the spinal cord. Persistent abnormal signal in the distal cord remains compatible with intramedullary haematoma (red arrow).