Clinical and surgical management of the cervical meningocele in the neonates

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Introduction and aims: In our study, we aimed to evaluate the clinical characteristics, radiology, associated anomalies, pre and postoperative follow-up, surgical strategy, and prognosis with cervical meningocele.

Methods: From 2012 to 2016, a total of 2 neonates were diagnosed as cervical meningocele. The clinical symptoms, radiological features, operative approaches, preoperative care, postoperative management and prognosis were noted prospectively (Figure 1 and 2). At 18 months postnatal period the children were assessed by the Denver Development Screening Test-II for psychomotor delay.

Results: The procedure was performed on one female and one male. Mean birth weight and gestational age were 3635 gram and 39.5 weeks, respectively. The mean size in sac was 5x5 cm. There was no neurological motor deficits in our two neonates. Magnetic resonance imaging showed that neural tissue within the sac, hydrocephaly and Chiari type 2 malformation. Hemivertebrae and rotoscoliosis was present in patient 1. Syringomyelia of the thoracic region was present in patient 2. The mean age of the neonates at the time of surgery was 4.5 days. The mean hospital stay was 33 days. The mean follow-up period for our cases was 2.5 years. There were no mortality, wound problems, cerebro-spinal fluid fistula and wound infection. There was no problems of ventriculoperitoneal shunt during the follow-up in our patients. Neurological examination and psychomotor examination with the Denver Development Screening Test-II was normal in two cases.

Conclusions: The clinical presentations, results of surgery, prognosis, and psychomotor development of cervical meningocele is better than of patients with thoracolumbar and lumbosacral locations of meningocele.

Figure 1

Figure 2