Double Myelomeningocele

(A Case Report)

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The patient, (R. B., Hospital No : 67 - 51605) a 15 - day - old male, was admitted to the Pediatric Service of Hacettepe Children's Hospital on October 18, 1967. The child's general condition appeared reasonably good. Two large sacs were present along the dorsal spine (Figures 1 and 2): the first, approximately 5 cm. in diameter, overlay the upper thoracic region; and the second, in the lumbosacral area, was larger and had a somewhat broader neck. Both sacs were tense and partially covered with thin skin. The superior surface of each was superficially infected and oozing cerebrospinal fluid. The patient's head circumference was 35 cm. Both anterior and posterior fontanels were tense indicating increased intracranial pressure most likely due to hydrocephalus secondary to an Arnold-Chiari malformation. On neurological examination the left leg was completely paralyzed and anal reflex could not be elicited. Both feet were clubbed. Past and family histories were noncontributory.

First Operation: Following two weeks of antibiotic therapy and local care of the myelomeningoceles, the patient underwent surgery under general anesthesia on November 16, 1967. Both myelomeningoceles were removed during this operation and the defects were covered with full-thickness, normal skin.

Pathologic report of the myelomeningoceles indicated that both sacs contained neural tissue, connective tissue and skin.

Second Operation: Immediately following repair of the myelomeningoceles the head enlarged rapidly and the fontanels became tense. Both spinal incisions bulged to a dangerous degree and, because of imminent rupture, a ventriculo-pleural shunt was per-

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formed on November 20, 1967. During the next 15 days the patient did well. When examined on December 6, 1967, the fontanels were again tense and the ventriculo-pleural shunt was not functioning.

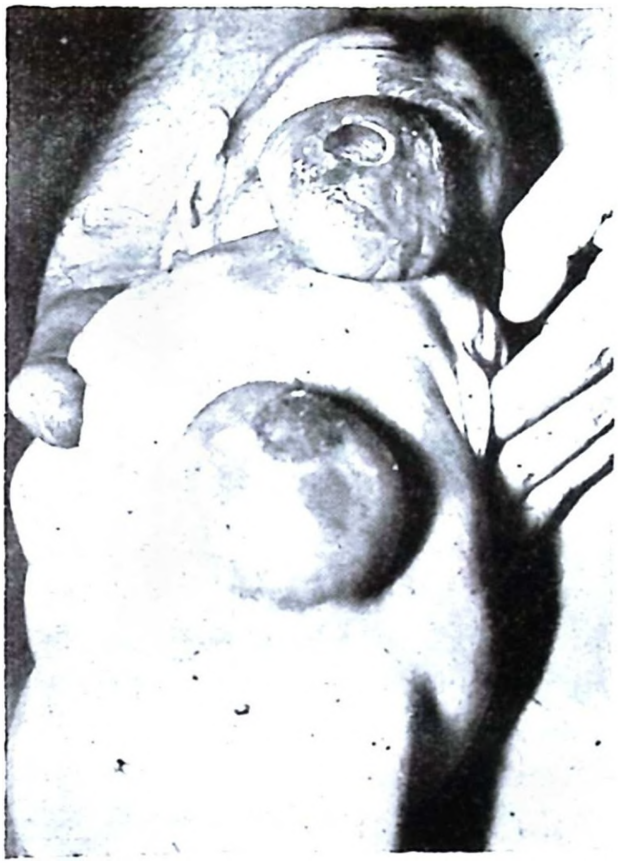

Figure 1.

Figure 2.

Third Operation: On December 14, 1967, the ventriculo-pleural shunt was removed and replaced with a new ventriculo-atrial Pudenz shunt. The post-operative course was uneventful and the fontanels remained depressed.

On January 4, 1968, immediately prior to the patient's discharge, he developed broncho-pneumonia which rapidly progressed to generalized septicemia. Despite vigorous supportive measures the patient expired on January 15, 1968. At the time of death a ventricular tap revealed clear cerebrospinal fluid containing no cells. Culture of this fluid was negative.

Post-mortem examination disclosed empyema on the side of the previous ventriculo-pleural shunt. Both lungs contained confluent broncho-pneumonia. The central nervous system showed the expect-

ed hydrocephalus and Arnold-Chiari malformation, but was free of gross and microscopic evidence of meningitis. Cultures obtained from various body organs and the blood contained Staphylococcus aureus.

Comment

A thorough search of the literature reveals no previously reported case of double myelomeningocele. Although this combined lesion is exceedingly rare, it has been encountered in two large pediatric neurosurgical centers in the United States.[1,2] Criteria for surgical intervention in these cases should follow the lines laid down for the management of a single myelomeningocele.

REFERENCES

1. Sayers, Martin P.: Personal Communication.
2. Matson, Donald D.: Personal Communication.