
Management of congenital hydrocephalus in the neurosurgery unit in assiut university

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SUMMARY This thesis comprises 2 parts. A subsidiary study on the cases of intrauterine hydrocephalus in the deliveries of one year in the obstetric department. The basic study on 31 operated cases of Congenital hydrocephalus by ventriculo-atrial shunt. This study emphasized a complete History-clinical examination, follow up of Head circumference on special charts, x-ray skull, Operative procedure, post operative complications, and mortality. These 31 cases were selected from 99 infants presented to the out patient clinic of neurosurgery by head enlargement, all the cases aged less than 2 years, clinically suspected Cases of post-natal and post-tumoral hydrocephalus were excluded. The results of the studies showed the following: 4 cases of intrauterine hydrocephalus in 1140 deliveries (1 male, 3 females). The average age of the operated cases is 5 months. Sex-ratio of the presented cases male/female-7/4 compared to 23/8 in the operated group. 45 of the mothers were primiparas. 77 of maternal ages lie in the age group 20-30 years. The commonest presenting complaint is progressive head enlargement. Late age presentation. The head circumference varied from 40-59 cm. • The thickness of cerebral mantle is inversely proportional to the head circumference. • Craniofacial disproportion, sun set appearance, tense widely opened anterior fontanel and dilated scalp veins are a constant physical signs. On radiological examination we found thin skull bones, opened anterior fontanel, supra tentorial sutural separation, cranio fascial disproportion are a constant radiological signs. C.S.F. pressure is high in 29 cases and low in 2 cases, Pudenz valve system is applied in all cases. Medium pressure in 29 cases low pressure in 2 cases. The right internal jugular vein is catheterized in (24 cases), the common facial vein in 7 cases. Cardiac irregularities are noticed in most of the cases during instillation of the atrial catheter. Death in 3 cases. Total mortality 9.6% due to ventriculitis in 2 cases and subdural haematoma in 1 case. Valve obstruction in 3 cases. Revision revealed obstruction of the ventricular catheter by brain matter in the 3 cases. The average duration of follow up after operation is 8 months.