100. Spinal Cord Tumors in Children

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This is a follow-up study of eight operated spinal cord tumors in children.
1) The patients are seven males and one female ranging in age from six months to eleven years old.
2) The level of tumor development is one in cervical, one in cervico-dorsal, four in dorsal, one in dorso-lumbar and one in cauda equina.
3) The transverse distribution consists of four extradural, three intradural-extramedullary and one intramedullary tumors. Pathological diagnosis shows two epidermoids, one each neurinoma, meningioma, glioma, lipoma, liposarcoma and neuroblastoma. These distributions are much different from adults' cases.
4) Long neglected cases are frequent because of wrong or no diagnosis.
5) The results of operations reveal four improvement, one stationary, two postoperative deaths and one death one year postoperatively. These results are inferior to those in the adults' cases.
6) Making earlier diagnosis should be mandatory to improve postoperative results. For this purpose, it is stressed that the determination of Elasberg-Dyke curve is essential because earlier and clearer detection is feasible for the bony change on the roentgenogram by the tumor growth in children than in adults (five cases out of eight: 62%).

101. Cervical Angular Movement in So-Called Whiplash Injury Victims

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This study has been done to obtain any objective findings from patients complain-
ing of indefinite symptoms such as headache, heavy feeling in the head, nuchal pain, dizziness, etc., notwithstanding no neurological and cervical radiological abnormalities in whiplash injury.

Method: 1). one hundred fifty seven whip-lash injury victims (victim group) and 135 normal persons (control group) were subjected to this study. Each group was divided as male and female and into 5 subgroups: from 10 to 19 years of age, from 20 to 29, from 30 to 39, from 40 to 49, from 50 to 59, and from 60 to 69. 2). measurement: Hadley's method was used for subtracting flexion from extension on X-rays; Niemyer & Penning’s method was applied for each cervical movement which was described as follows: C-1/C-2, C-2/C-3, C-3/C-4, C-4/C-5, C-5/C-6, and C-6/C-7.

Results: Among the control group, there were a few cases showing below the mean value of E-F, of C-4/C-5, and C-5/C-6 at the same time, which will be described as the 3 decrease. In the control group, from 10 to 19 years of age (male), 16.6% showed the 3 decrease, and females, 0%; males of 20 to 29, 16.2%, and females, 11.1%; males of 30 to 39.9%, and females, 11%; males and females of 40 to 49, 16.6%; males of 50 to 59, 16.6%, and females, 0%; males of 60 to 69.0%. In the victim group, among the males of 10 to 19 years of age, 18% showed the 3 decrease, and the females, 100%; males of 20 to 29, 34.5%, and females, 30%; males of 30 to 39, 52.5%, and females, 45.4%; males of 40 to 49, 35%, and females, 28.5%; males of 50 to 59, 40%, and females, 0%; males of 60 to 69, 100%, and females, 0%. In the control group of 135 persons, 11.8% showed the 3 decrease; in the victim group of 157, 39.4%.

Summary: Among whip-lash injury victims complaining of the indefinite symptoms without any neurological radiological abnormalities, about one third showed below the mean value of E–F, of C–4/C–5, and of C–5/C–6 of the normal persons at the same time.

102. The Use of Microsurgery in Spinal A-V Malformation

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The authors experienced two cases of spinal A–V malformations which underwent radical operation by use of microsurgery and showed marked improvement after this procedure.

Case 1: 49 years old, male. He developed suddenly motor weakness in his bilateral legs 6 months before admission and since remained in paraparetic state and complained of severe pain in his legs. Myelogram showed a typical 'worm like