FROM LUDVIKA HOSPITAL. HEAD: THE AUTHOR

HERNIATED NUCLEUS PULPOSUS IN A CHILD OF TWELVE YEARS

BY

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For somewhat more than a decade, degenerative processes in the intervertebral discs have been the object of much interest from a clinical point of view, and the literature on the subject, which increases yearly, shows that this problem can still be considered from new angles. An account will be given here of a case I treated this year, which is of interest in several respects.

Monica P., born 1932. Previously well. In the middle of September, during gymnastics at school, the patient assumed an "arch-stoop-standing" position (the pupil stands on his hands with trunk and legs arched somewhat backwards and the feet supported against the wall). Immediately afterwards, she felt pains in the back, which increased during the next few days, and radiated from the buttocks down to the knee on the posterior side of the right leg. Since then, these pains have increased, and during last week the patient has felt aching pain all the way down to the right heel. The pain is intensified on coughing and sneezing. She cannot walk in an upright position. Considerable pain as soon as she moves, but no pain when lying down.

Status: General condition good. Nothing pathological from internal organs. On examination, there is discovered a pronounced contracture of the long musculature of the back, together with a slight deviation to the left. Lasègue positive on both sides at a 10 elevation of the legs. Patellar reflex distinct on both sides. The Achilles reflex normal on the left side, but quite absent on the right. Babinski negative.

Sensibility: Nothing pathological.

Lumbar puncture shows normal conditions.

X-ray of vertebrae and intervertebral discs shows no alterations.

The patient was kept in bed for a month and heat was applied, but her condition in no way improved.

Operation (the author): *Partial laminectomy + extirpation of disc-hernia.* Local anesthesia. A part of the arch of LV on the right side was removed. Ligamentum flavum was rather thicker than normal. After this had been removed, a pea-sized resistance which raised the nerve-root was palpated in the typical place. On incision, the contents of the nodule were found to be under pressure and were somewhat more mucous than usual in a disc-hernia. The canal into nucleus pulposus was investigated by means of a sound.

Subsequent investigation, a month after the patient's discharge from hospital, showed that she was altogether free from symptoms.

Here we have the case of a girl, twelve years old, who, in immediate connection with a very slight injury, develops a syndrom which is typical of compression of SI. The case is interesting, partly in consequence of the patient's youth, and partly because the symptoms typical of disc-hernia arose in immediate connection with the injury.

In *Bradford* and *Spurling*'s material, published in 1939, the average age was 40. In that survey, there is one case aged 17. *Friberg* who, in 1941, published material from Cripples' Institutes in Stockholm, has an average age of 37, the youngest patient being 18. The corresponding figures for *Malmros*' cases (published in 1942) are, approximately, 40 and 17. The figures do not refer to the date when the symptoms set in, but to the time when the patients were admitted to hospital. Summaries published earlier show corresponding figures.

A few cases of diseased discs in children have been described in literature. *Kohlmann*, for instance, mentions a boy of 12 who, during gymnastics, suddenly felt a sharp pain in the back, which continued for some days. The X-ray plate, taken somewhat later, shows a deposit of chalk in the disc between the IVth and Vth thoracic vertebra. *Baron* has described similar chalk deposits in children after the presence of fever. I have not been able to find any description of disc-hernia in such young persons.

The present case is also of interest when considering the connection between disc degenerations and injury. The general con-

ception regarding the origin of disc-hernia is that a certain degree of previous degeneration must have existed within the disc. From the results of *Friberg*'s experiments on dead subjects, it can, to a certain degree, be considered probable that this degenerative process must affect, not only nucleus pulposus but also annulus fibrosus. In many cases we have, in addition, an injury which provokes the actual herniation process. Opinions differ respecting the importance of the degenerative and the traumatic factor.

A few cases have been published where disc-hernia has developed in immediate connection with injury (*Middleton* and *Teacher, Kocher, Gräff*). In these cases, however, the injury has been extremely severe, with death as the immediate result. The disc symptoms have been discovered on autopsy.

Reports previously published show that the age when disc-hernia most usually occurs lies between 30 and 40. The above case shows, consequently, that such alterations can arise at a considerably earlier age.

SUMMARY

A typical disc-hernia, in a girl of 12, which compresses the root of SI.

LITERATURE

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