Current Problem Case

Two Cases of Tuberculous Caverna of the Greater Trochanter Filled with Gentamycin-PMMA-Beads (Septopal Chain)
A New Field of Application

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Summary. The author reports on two cases of tuberculous caverna treated by filling with Gentamycin-PMMA-beads (Septopal). The advantages of this new method are outlined as compared to the traditional resection method.


In cases of tuberculous caverna of the greater trochanter the complete resection of the trochanter massivum removes all the diseased part of bone. In cases of radical operations healing of the tuberculous process without recurrence can be expected. A complete resection should start medially from the apex of the trochanter and by this inevitably detaches the insertion of the m. gluteus medius and minimus. Because of the deteriorated anatomical conditions there is no possibility to reattach them. From the point of view of gait the function of m. gluteus medius is especially important. The loss of its function leads to a limp of Trendelenburg type.

For this reason it seems to be advisable to do every effort to retain the insertion of the m. gluteus medius and minimus. As the tuberculous process of the trochanter region usually starts in the bursa of the glutei the disease usually deteriorates the bony structure of the apex of trochanter major. In spite of this the cicatrization usually prevents the m. gluteus medius and minimus to slip up and a complete lack of their function is very seldom. Therefore we regard it much better not to touch this region by chiseling. If the greater trochanter is not completely resected in certain cases circumscript cavities may remain after cleaning the focus. As a remaining sinus in the bone can be a source of recurrent infection we regard it to be important to try to fill it up.

Guo Feng [11] from the People's Republic of China reported two cases of vertebral tuberculosis successfully treated by the insertion of Septopal chain. The theoretical basis of trial of Septopal in tuberculous cases was that Waitz and Weinstein [3] in 1969 established a high activity of Gentamycin against strains of Mycobacterium tuberculosis. Sanders et al. in 1971 also detected a marked activity of Gentamycin against different strains of Mycobacteria, but animal experiments using mice infected with Mycobacterium tuberculosis did not show good results. This was attributed to the pharmacokinetic fact that the distribution of Gentamycin in the lung tissue is unfavourable [2].

This was one of the causes that Gentamycin was not instituted in the treatment of tuberculosis. The other cause was its relatively high toxicity when systematically administered. In cases of local introduction the most favourable pharmacokinetic distribution can be achieved: extremely high concentration in the site of infection and extremely low level in the serum, well below the toxicity limit.

On the ground of the aforesaid conceptions we filled up the cavity with Septopal chain in two cases after the excision of the diseased bone parts of the tuberculous greater trochanter.

Case Presentation

P. K. 47-year-old male patient was admitted to our department for a discharging fistula on the subtro-
chanteric region of the right thigh. The first onset of the disease was in 1956, when in the same region he developed an abscess. The abscess was incised in a district hospital. As the X-ray taken in the same time did not show noticeable alteration of the bone no further attempt was done to establish the etiological diagnosis. The surgery was followed by delayed wound healing. He had no complaints for the duration of 24 years. In January 1981 the patient started again to develop a swelling on the same site. Needle biopsy of this region performed in the same hospital did not show pathognomic signs. As following the biopsy the patient developed a discharging fistula, he was sent to our department.

On examination the trochanteric region was swollen, the discharging fistula and the surrounding skin showed a typical picture characteristic for tuberculosis. Figures 1 and 2 represent the radiological condi-