


SIMPLE BONE CYSTS TREATED BY INJECTION OF AUTOLOGOUS BONE MARROW

Sir,
I read with interest the article in the November 1996 issue on simple bone cysts treated by injection of autologous bone marrow by Lokiec et al because the authors attributed their success entirely to the alleged osteogenesis from the injected cells. They ignore the possibility that, in their technique, the trauma to the cyst wall may play an important, if not crucial, role in the subsidence of the lesion. This possibility, which has been mentioned in the literature at least twice, cannot be dismissed. The authors' technique, including, as it does, the use of a cannulated needle and a trocar, with "multiple perforations through the cyst wall" and an instruction to "break all the intralesional septa" is not "almost atraumatic". As has been suggested, it may instigate formation of new vascular channels, previously impeded, which will allow continuous drainage of the cyst.

If this is the explanation of the success of their technique, the relevance of the autologous precursor cells is questionable as has been isolated in cyst fluid and implicated in the associated bone destruction.4

Others believe that the cyst represents the inability of the interstitial fluid to escape from the bone due to blockage of the venous drainage system.5,6 Ekkernkamp, Muhr and Lies7 and Chigira et al8 have directed treatment toward decreasing the intraosseous pressure, successfully employing decompression by a cannulated screw or multiple cortical perforation.

The operative technique used by Lokiec et al also included "disrupting the lining membrane and making multiple perforations through the cyst wall". We think that it is likely that the healing achieved by Lokiec et al is influenced by or is the result of the multiple perforations made in the wall of the cyst.

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Author's reply:

Sir,
We appreciate very much the interesting comments and points raised by Dr Cohen and Drs Schreuder and Veth. Both letters address a similar point regarding the possible effect of multiple perforations through the cyst wall. We thank them for allowing us to explain again the technique in order to prevent misunderstandings. The cortex of the cyst is perforated only once with a thin trocar. After evacuation of the fluid by aspiration, the same needle is used to disrupt the lining membrane in the periphery of the cyst and never in the periphery of the cyst. Multiple perforations through the distal cyst wall only into the medullary cavity and never in the periphery of the cyst. Multiple perforations ensure communication of the cyst cavity with the medullary space.

We have used the same method in patients who were treated in the past by steroid injections. Our results did not differ from those published in the literature, with only 50% of cysts showing complete healing while 50% of patients required more than one injection.

Our experience, compared with the injection of steroid, convinces us that our success can be directly attributed to the activity of the osteoprogenitor cells in the marrow stroma.

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CARE OF THE POLYTRAUMATISED PATIENT

Sir,
We found the review by Tscherne and Negel1 in the September 1996 issue most informative.

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