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LETTERS TO THE EDITOR

Sir,

Following resection for tumor of the proximal tibia, Jensen (1983) has recommended reconstruction of the knee by a long-stemmed hinge endoprosthesis. His recommendation was based on observations in two patients followed for 1 year.

One of these, a 38-year-old woman, had a recurrent aneurysmal bone cyst. I question the use of this method rather than arthrodesis in an otherwise healthy person who can be expected to live another 40 years.

(1) Following fusion of the knee, function is superior to that reported in the patient; at 1 year she had pain on walking, knee flexion only 35 degrees, and permanent use of a crutch.

(2) An arthrodesis of the knee does not deteriorate whereas there is a substantial risk for future, major complications following arthroplasty of the knee with the long-stemmed hinge endoprosthesis. Already 7 years after this type of arthroplasty, almost one half (22/49) of the osteoarthrosis patients reported to the Swedish prospective multicenter investigation had major loosening and/or deep infection (K. Knutson – unpublished data).

(3) Short of amputation, salvage for a failed, major arthroplasty of the knee is a formidable task. The results of re-arthroplasty are disappointing, and knee fusion is at best difficult (Knutson & Lidgren 1982).

On the other hand, after resection of the proximal tibia or lower femur, primary knee fusion by intramedullary nailing and autologous bone grafting is reliable (Campanacci & Costa 1979, Enneking et al. 1980). A healing period of 1–2 years could be shortened by the use of vascularized free bone grafts (Gou & Ding 1981).

Discussing his results, Jensen stated that "... major resection arthroplasty of the proximal tibia is well indicated in benign cases as an alternative to amputation." In view of available data, primary knee fusion seems to be the proper alternative.

Anders Rydholm, M.D.

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Sir,

In commenting on the letter to the Editor from A. Rydholm, I must primarily mention that all alternatives to amputation through or above the knee have been reported in only a limited number of cases (2 to 5). None of these reports allows more substantial recommendations.

I agree that a hinged endoprosthesis in younger patients does have an uncertain future on a long-term basis. Salvage procedures after mechanical loosening are, however, possible.

The technique described by Enneking et al. (1977, 1980) involves major surgery and experience is limited with rather high complication rates. Failure in these cases might even lead to very high above-knee amputations with doubtful rehabilitation results.

My conclusion in the paper was that resection arthroplasty can be recommended, provided the tumor is aggressive and recurrent, although benign, or in metastatic tumors requiring large bone resections. It is, however, not my opinion that the suggested alternatives should be overruled, but that all alternatives should be considered in relation to the extent of the resection.

J. Steen Jensen, Dr. med. Sc.

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