Suid-Afrikaanse Tydskrif vir Geneeskunde

South African Medical Journal

VAN DIE REDAKSIE

BEHANDELING VAN PATOLOGIESE BREUKE

Die aanvanklike doel van die behandeling van beserings by bejaarde mense is amper altyd om die pasiënt so gou moontlik weer op die been te bring; die bejaarde kan nie lang periodes van immobilisasie uitstaan sonder ernstige verlies van fisiese- en geesteskrag nie. Om hierdie rede mag tegniese volmaaktheid van metode of behandeling—só belangrik by 'n jong pasiënt—dikwels hiervoor opgeoffer word, veral as die uiteindelike doel versagting van die ongemaklike kliniese eienskappe, eerder as 'n permanente kuur is. 'n Tipiese voorbeeld van hierdie tipe geval vind ons by die bejaarde en verswakte lyer aan 'n kwaadaardige siekte wat 'n patologiese breuk weens metastases in been opdoen. 'n Lang en dikwels pynlike periode van immobilisasie mag op hierdie katastrofe voeg wat, wanneer daarop teruggekyk word, in baie instansies as die begin van die einde bestempel kon word.

Die doel van behandeling is dus om die pasiënt vroeg en pynloos ambulant te maak, en die betreklik swak vooruitsig by pasiënte met kwaadaardige verspreidings, regverdig die gebruik van vrymoediger metodes om hierdie doel te behaal. Vir 'n tyd is die aanwending van uitstraling op die metastases—as 'n terapeutiese sambreel om die gevaar van verspreidende kwaadaardige selle te beperk—aanbeveel, voor daar werklik geopereer word, indien ope reduksie wel nodig sou wees. Onlangs egter het Jelliffe,[1] toe hy die sienswyse bevestig het dat radioterapie 'n rol by die behandeling van die toestand behoort te speel, verklaar dat meganiese reduksie en fiksering van die breuk, voorkeur bó die metode moet kry. Nie alleen verminder uitstel die kanse van 'n bevredigende meganiese resultaat nie—so skryf hy—maar die teoretiese gevaar van verspreidende kwaadaardige selle, as daar voor uitstraling geopereer word, is nie werklik so 'n lewensbelangrike oorweging by hierdie tipe geval as wat dit byvoorbeeld by 'n primêre borskarsinoom is nie. Dit is verreweg belangriker om die pasiënt weer op die been te kry.

Om hierdie rede het Jelliffe en sy chirurgiese kollegas, Devas en Dickson begin om hulle patologiese breukgevalle met onmiddellike inwendige fiksering te behandel en dit so gou moontlik met uitstraling op te volg. Meer as 15 jaar gelede het Küntscher[2] op die aansienlike voordele van hierdie metode gewys, nl. vryheid van pyn, 'n mate van beweeglikheid terwyl die pasiënt nog in die bed is, makliker verpleging (selfs tuis), 'n spoediger herstel en, boonop, groter

EDITORIAL

TREATMENT OF PATHOLOGICAL FRACTURES

The primary aim in the treatment of injuries in old people is nearly always to get the patient back on his feet as soon as possible; the aged cannot bear long periods of immobilization without serious loss of physical and mental vigour. For this reason, technical perfection of technique or treatment—so important in a young patient—may frequently be sacrificed to this end, particularly as the long-term aim is palliation of the discomforting clinical features rather than permanent cure. A typical example of this type of case is the aged and weakened sufferer from malignant disease who sustains a pathological fracture through metastases in bone. A long and often painful period of immobilization may follow this catastrophe, which, retrospectively, in many instances can be designated the beginning of the end.

The aim of treatment, then, is early painless ambulation, and the relatively poor prognosis in patients with disseminated malignancy justifies the use of bolder techniques to achieve it. For some time the application of radiation to the metastases—as a therapeutic umbrella to limit the risk of disseminating malignant cells—has been advised before actual operation, if open reduction is indeed required. Recently, however, Jelliffe[1] in affirming the view that radiotherapy should play a role in the treatment of the condition, stated that mechanical reduction and fixation of the fracture should take priority over it. Not only does delay diminish the chance of a satisfactory mechanical result, he wrote, but the theoretical danger of disseminating malignant cells by operating before irradiation is not really so vital a consideration in this type of case as it is with, say, a primary breast carcinoma. It is far more important to get the patient back on his feet.

For this reason, Jelliffe and his surgical colleagues, Devas and Dickson, have commenced treating their cases of pathological fracture by immediate internal fixation followed as soon as possible by irradiation. Küntscher[2] more than 15 years ago pointed out the considerable advantages of this method, viz. freedom from pain, a degree of mobility whilst still in bed,

toegang vir die aanwendings van X-strale aan meer as een gebied, wat nodig mag wees vir 'n taamlik weerstandsbiedende gewas. Die metodes is identies met dié wat gebruik word om nie-patologiese breuke deur die inwendige metode te fikseer.

Daar is baie tegniese moeilikhede en Jelliffe en sy medewerkers verklaar dat, as 'n algemene reël, dit waarskynlik beter is as inwendige fiksering vermy word, tensy die pasiënt se ouderdom, algemene toestand en omstandighede suggereer dat langdurige immobilisasie ongewens is, en die gebruik daarvan by gevalle van 'n patologiese breuk van die pypbeen by 'n bejaarde en swak persoon met wydverspreide kwaadaardige siektes, word as 'n keuse gelaat. Pyn is 'n oorweging van groot belang, immobiliteit 'n ander, en die gevolgtrekking dat uitwendige fiksering nie daarin sal slaag om die pasiënt gou ambulant te maak of bevredigend te genees nie. Daar behoort een of ander bewys van die metastatiese aard van die gewas aanwesig te wees voordat inwendige fiksering oorweeg word. 'n Ander definitiewe aanduiding is die aanwesigheid van 'n hormoonafhanklike gewas waarvan die wydverspreide neerslae terapeuties beheer kan word. By ten minste een van die pasiënte in Jelliffe *et al.* se reeks, was oormatige pyn die enigste aanduiding vir 'n operasie.

Met die oog op die sukses van inwendige fiksering by behandeling van breuke van die dybeenskag, is dit nie verbasend dat die meerderheid van hulle gevalle van hierdie tipe was nie. Van die 7 gevalle wat op hierdie wyse gestabiliseer was, het ten minste 3 daarvan genees (volgens radiologiese bewys) en almal was ambulant. Tussenknobbelbreuke en breuke van die laer nek van die dybeen was met 'n Smith-Petersen pen of met 'n spyker en plaat behandel; 6 kwaadaardige letsels was suksesvol deur hierdie metode gestabiliseer.

Die derde tipe van patologiese breuk, was dié wat die skag van die boarmbeen aantas, waar ondraaglike pyn en ongemak die enigste aanduiding vir 'n operasie was; hier was 3 pasiënte, slegs deur vermindering van pyn alleen, in staat om 'n aktiewe lewe te hervat.

Ten slotte moet daarop gewys word dat inwendige fiksering as 'n voorbehoedmiddel, 'n definitiewe plek inneem by behandeling van enige geval waar dit skyn of 'n patologiese breuk dreig. Dit is 'n belangrike punt, aangesien die gevaar van 'n breuk vir 'n periode na diep X-straalterapie en voordat kalsifikasie en genesing begin, opvallend toeneem.

1. Devas, M. B., Dickson, J. W. en Jelliffe, A. M. (1956): Lancet, **2**, 484.
2. Küntscher, G. (1940): *Klin. Wschr.*, **67**, 1145.

easier nursing (even at home), and more speedy convalescence; and, in addition, greater access for the multiple-field applications of X-rays that may be required for a fairly radio-resistant tumor. The techniques are identical with those used in fixing non-pathological fractures by the internal method.

There are many technical difficulties, and Jelliffe and his co-workers state that, as a general rule, internal fixation is 'probably best avoided unless the age, general condition, and circumstances of the patient suggest that prolonged immobilization is inadvisable', which leaves it as a procedure of choice for pathological fracture of a long bone in an old and frail person with widespread malignant disease. Pain is a primary consideration, immobility another, and the conclusion that external fixation will fail to ensure early ambulation or satisfactory healing. Some evidence of the metastatic nature of the growth should be present before internal fixation is considered. Another definite indication is the presence of a hormone-dependent growth whose widespread deposits can be therapeutically controlled. In at least one of the patients in the series of Jelliffe *et al.* excessive pain was the sole indication for operation.

In view of the success of internal fixation in treating fractures of the shaft of the femur, it is not surprising that the majority of their cases were of this type. Of the 7 cases thus stabilized, at least 3 healed (according to radiological evidence) and all were ambulant. Intertrochanteric fractures and fractures of the lower neck of the femur were treated with a Smith-Petersen pin or with a nail and plate; 6 malignant lesions were successfully stabilized by this method.

The third type of pathological fracture was that affecting the humeral shaft, where unbearable pain and discomfort was the ruling indication for operation; here 3 patients were able to resume an active life by reduction of pain alone.

Finally it is pointed out that prophylactic internal fixation has a definite place in treatment in any case where a pathological fracture seems imminent. This is an important point, since the risk of fracture increases markedly for a time after deep X-ray therapy before calcification and healing commence.

1. Devas, M. B., Dickson, J. W. and Jelliffe, A. M. (1956): Lancet, **2**, 484.
2. Küntscher, G. (1940): *Klin. Wschr.*, **67**, 1145.