

lie medial to a supracondylar fracture and the biceps tendon lateral to it, traction applied to distract the fragments causes the gap between neurovascular bundle and tendon to narrow, effectively gripping the flared end of the proximal fragment (Fig. 1). In these four cases this seems to have happened. The fractures all involved gross posterior displacement of the distal fragment. The distal end of the proximal fragment lay just beneath the skin and in three cases was palpable where it tethered the overlying skin. The radial pulse was absent in two cases and manipulation did not achieve reduction nor restore the circulation. In the two cases where the radial pulse was present, manipulation caused its temporary obliteration.

An anterior exploration allowed good exposure of the fracture and soft tissues. The proximal fragment,

which had cut through brachialis muscle, lay close beneath the skin. Care was needed to avoid damaging the nerve or vessel.

No benefits in any form have been received or will be received from a commercial party related directly or indirectly to the subject of this article.

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EFFECT OF WEIGHT LOSS ON MUSCULOSKELETAL PAIN IN THE MORBIDLY OBESE

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A relationship between obesity and the development of degenerative arthritis has been shown (Hartz et al 1986), but we are not aware of any prospective study to see if weight loss relieves musculoskeletal pain. We therefore undertook a study to determine the incidence of such chronic pain in an obese population and the effect of weight loss.

Patients. We studied 105 consecutive patients undergoing vertical banded gastroplasty. In this operation, the stomach is converted from a large reservoir to a narrow conduit by lines of staples, with a non-expandable mesh collar at the lower end of the gastric tube (Deitel et al 1986). This makes it possible to eat only tiny, well-chewed meals, and weight loss is accomplished by limited intake.

All patients were at least 45 kg (100 lb) overweight, based on the 1983 Metropolitan Life Foundation height and weight tables; their ages ranged from 18 to 58 years (average 33.4). Before operation all the patients completed a standardised questionnaire, were interviewed

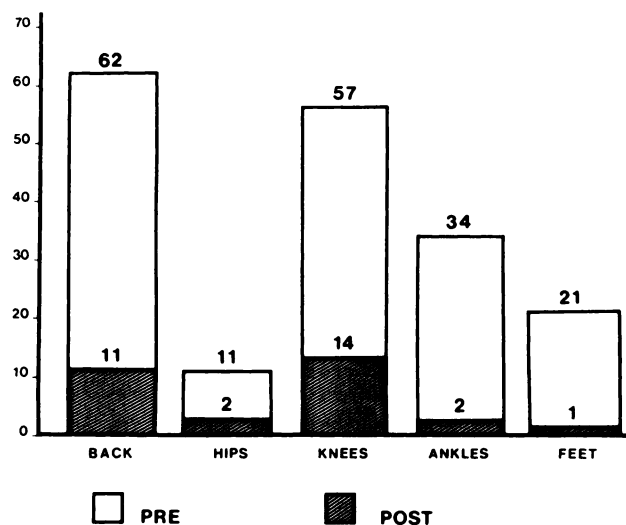


Fig. 1

and examined by an orthopaedic surgeon and had radiographs taken of any symptomatic joints. Follow-up was obtained on 104 of the 105 patients at an average of 22.5 months (minimum 11 months). At follow-up, each patient was weighed and again completed the standardised questionnaire.

Results. The average weight pre-operatively was 125 kg (277 lb). Of the 105 patients 88% had, on most days of the month, chronic musculoskeletal pain which was severe enough to interfere with the activities of daily living. The areas involved were low back (62%), the hips

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(11%), the knees (57%), the ankles (34%), and the feet (21%). Based on the pre-operative physical and radiographic examination, an attempt was made to diagnose the cause of the symptoms at each site, and this is shown in Table I. Radiographic study of the symptomatic joints showed significant degenerative changes in 54% of lumbar spines, 25% of hips and 38% of knees.

The average pre-operative weight was 125 kg (277 lb), and at review the average weight loss was 44 kg (97 lb), the least being 16 kg (35 lb). After losing weight, 89% of patients had complete relief of pain in one or more joints. Figure 1 shows the percentage incidence of pain before and after weight loss.

Discussion. During normal activities of daily living, the forces acting on the back amount to between two and three times the body-weight (Nachemson 1966), the force across the hips is two to four times body-weight (Pauwels 1976) and the force across the knees is two to five times body-weight (Maquet 1976). Weight loss is therefore a logical step to relieve pain in these joints and to slow the progression of degenerative arthritis.

We found that 89% of patients experienced relief of pain in one or more joints after weight loss. A control group of patients who failed to lose weight did not emerge from this study. However, when we compared the pain relief in those who lost a moderate amount of weight (< 27 kg or 60 lb) with those who lost > 45 kg (99 lb), there was no statistical difference. Two patients lost more than 45 kg and subsequently regained the excess weight; in both, chronic low back pain was relieved with the weight loss but returned when the weight was regained.

Table I. Pre-operative diagnosis of symptomatic joints

	Diagnosis	Per cent
Back	Mechanical pain	95
	Sciatica	5
Knee	Patellofemoral chondromalacia or degenerative arthritis	70
	Tibiofemoral arthritis	25
	Ligamentous laxity	5
Ankle	Degenerative arthritis	50
	Ligamentous laxity	50
Foot	Metatarsalgia	57
	Plantar fasciitis	43

Conclusions. Chronic musculoskeletal pain is common in morbidly obese individuals; weight loss can lead to significant relief.

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INTRANEURAL HAEMANGIOMA OF THE POSTERIOR TIBIAL NERVE

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Intraneural haemangioma is a rare lesion, especially in a peripheral nerve. The first such case involving the posterior tibial nerve was reported by Sommer (1922). We report a patient with a haemangioma in a sensory branch of the same nerve; this presented as unaccountable heel pain and was cured by simple resection of the tumour.

Case report. A female science student aged 23, com-

plained of heel pain of increasing intensity over the past two years. The pain disturbed sleep, was not relieved by anti-inflammatory drugs, and was accompanied by a limp. It radiated to the medial malleolus, the calf and the popliteal fossa. There was no history of injury. Neurological examination was normal, except for diffuse hyper-reflexia; the neurological unit considered a diagnosis of spastic quadriplegia and vasodilator treatment was instituted, but without improvement.

A year later, in view of the persistence of her symptoms, the patient was referred to the orthopaedic unit. Heel pressure was not painful but there was a small tender area in the posteromedial aspect of the leg, 4 cm above the medial malleolus. Neurological examination was now normal. Radiographs and scans of the heel and foot also were normal, and neurophysiological examination confirmed the absence of any plantar muscle deficit.

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