外固定

可调式平衡牵引固定器治疗非稳定性小腿骨折

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摘要：采用可调式平衡牵引固定器治疗非稳定性小腿骨折65例。治疗结果全部愈合，平均临床愈合时间8.4周，膝踝关节功能3个月恢复正常者达98%左右，优良率为92.3%。

关键词：可调式平衡牵引固定器 胫腓骨骨折。

1978～1983年间，作者应用可调式平衡牵引固定器治疗12岁以上非稳定性骨折65例，效果满意，分析如下。

器材与方法

可调式平衡牵引固定器是由一枚（开放性骨折为二枚）骨圆针（直径3mm）、一个半圆式固定圈、二枚调节螺杆组成。在夹板、纸垫协同作用下，起牵引固定、防止和矫正成角、旋转作用。

1.闭合性骨折 局麻下无菌操作，常规行跟骨穿针，手法复位，对位满意，迅速放好夹板、纸垫。固定圈置于小腿近端，通过调节螺杆连接固定圈及骨圆针成一整体。调节螺杆起牵引固定作用，调节一侧螺杆可矫正成角。术后第2天不负重下地，2周开始逐渐负重。3～4周纤维连接可解除固定器，夹板继续固定，练功和负重，直至临床愈合。若患肢肿胀严重或表皮擦伤，不宜夹板固定者，先行跟骨牵引，待肿胀减轻或表皮擦伤基本好转，改换夹板及固定器牵引固定；若小腿骨折合并间隔综合征，轻者保守治疗，平放患肢，暂不固定牵引。静注甘露醇等脱水剂，待症状明显减轻或消失，再行夹板外固定器固定；重者需行早期减张术，伤口愈合再行夹板外固定器固定，练功同前。

2.开放性骨折 腰麻和坐骨神经阻滞麻醉。早期彻底清创，正确闭合伤口。自骨折两端各穿一枚骨圆针（直径3mm），包扎伤口，手法复位，上下两针固定于调节螺杆两端，调节螺杆适宜长度，伤口愈合后，再行夹板辅助固定，4～6周解除外固定器，夹板继续固定，直至临床愈合。若伤口表浅感染，除应用抗菌素外，延期使用夹板，直至炎症消失。若针道感染，轻者除应用抗菌素外，勤换药即可。若炎症加重，分泌物明显增多，需拔出骨圆针，换中药（生肌膏等），石膏托固定。伤口愈合，夹板固定，直至临床愈合，解除夹板。

临床资料

本组65例，男60例，女5例；年龄最小14岁，最大73岁；闭合骨折58例，开放骨折7例；其中Ⅰ°损伤5例，Ⅱ°损伤2例；撞伤17例，摔伤19例，踢伤5例，挤压伤3例，扭伤3例；粉碎骨折16例，螺旋骨折35例，斜面骨折12例，多段骨折2例；骨折部位：上1/3 5例，中1/3 20例，中下1/3 30例，下1/3 10例；X线显示原始移位程度：<1/2 9例、<2/3 36例，完全移位20例；早期合并症：间隔综合症6例，脂肪栓塞综合症1例，休克2例；合并伤：多发骨折4例，同侧股骨干骨折1例。

治疗结果

本组65例，经随访，最长8年，最短2年，平均3年3个月。65例全部愈合，临床愈合时

间，最短5周，最长22周，平均8.4周。膝关节功能在3个月内恢复正常者63例，6个月内恢复正常者2例；踝关节功能3个月内恢复者60例，6个月内恢复者5例。成角畸形＜5°3例，5～10°3例。短缩畸形＜1cm3例，＜3cm1例。表浅感染1例，针道感染1例，经换药和拔针2周内痊愈。压疮1例，2个月治愈。平均两周下地。

根据1975年“全国中西医结合治疗骨折经验交流座谈会”评定标准其结果如下：优良60例（92.3%），尚可3例(4.6%)差2例(3.0%)

讨　论

1973年，我院首次应用二针夹板固定牵引法治疗小腿骨折，此法既具有中西医结合疗法优点，又克服了它不能早期下地的缺点，但无调节作用。1978年作者又研制应用可调式平衡牵引固定器治疗小腿骨折，该法保留了上述二种方法的优点，并且具有延长、回缩的调节作用。小腿骨折后，由于肌肉和肢体重力的影响及人为的因素，胫骨骨折端存在着再移位的倾向，常见的移位有三种（成角、重叠、旋转），上述移位均能干扰骨折的愈合，因此必须依靠较坚强的固定（包括内外固定）保障骨折正常愈合。可调式平衡牵引固定器结合小夹板，具有牵引固定作用，能早期下地进行功能锻炼，并能矫正胫骨重叠、成角、旋转移位。而可调式平衡牵引器，其再移位率、畸形愈合率、感染率等均低于国外外固定器。

改进“井”字包扎法治疗髌骨骨折

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“井”字包扎法治疗髌骨骨折，在明代《证治准绳》有记载，六十年代李国衡教授对“井”字包扎法曾作过介绍，近年来他对此作了进一步的临床研究，取得了较好的治疗效果，报告如下。

包扎用材

1.绷带条四根：二根长带约50cm，中段需裹入约10cm长的棉花条；二根短带约30cm。

2.木板一块，长55～65cm，宽12～15cm，厚为1～1.5cm，要根据患肢长短，粗细而定。木板一面垫一层约1cm以上棉垫，并用绷带缠裹。

3.小棉垫3～4只，宽10cm，厚3cm。

4.凡士林油膏，油纱布。

治疗方法

如局部血肿过大，应在无菌操作下用针筒抽出瘀血，有利于复位包扎。

1.先将髌骨处皮肤涂少量凡士林油膏；

2.木夹板放在膝关节后侧，有棉垫一面接触皮肤，腘窝垫放2～3块小棉垫，使患膝微屈于10°左右。

3.先将二条短绷带置于髌骨边缘，将二条长绷带置于髌骨上下缘。四条绷带与皮肤接触部分涂凡士林油膏，上下缘绷带下面还须垫上油纱布。

先将上极髌骨向下推，横扎上缘的长绷带，固定近端骨片。然后以远端骨片凑合近端骨片，再横扎下缘长绷带。最后再纵向扎紧髌骨两侧的短绷带。扎时要上口稍宽，下口稍窄，以适应髌骨近端宽，远端窄的解剖结构，从而使髌骨固定在“井”口之中。长绷带须从膝前部扎至木夹板之后。最后将“井”口内皱起的皮肤向四周推平。外面用绷带交叉包扎。如髌骨骨片有前后移位，可在向前的一块骨片上加一压力垫（敷药外面），然后再绷带包扎，使髌骨平整。在托板上下两端分别用绷带与大、小腿一起包扎，使板不易移位。

包扎时长绷带裹入棉条部须紧对髌骨上下边缘；第一次包扎时由于肿胀，不强求立即使断端复位，只求上下骨片完全扎在“井”口之

Abstract of Original Articles

Experimental study and Clinical observation on the mechanism of steriod induced ischemic necrosis of the femoral head

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Sixty-four Japanese White rabbits were randomly divided into two groups: Hydrocortisone acetate of 8mg/kg were injected

Hypodermically to the experimental group and normal saline 0.32mg/kg to the control group in the same way every week. The results showed that application of the steriod drug could producc fat degeneration and necrosis of osteocytes and fat embolism in the small blood vessels of the femoral head. The abnormal hypertrophied fat cells in the bone marrow compressed small veins in the femoral head to cause blood stasis of the capillaries. The growth and regeneration of the cappillary were inhibited.

Clinically, 109 cases of steroid induced ischemic necrosis of femoral head were treated with repair of deformed head, filling cancellous bone into the necrotic area and grafting fibula with anastomosis of blood vessels. Followed up studies from 1-10 years postoperatively showed that the excellent and good rate was 86.6%.

key words Femoral head necrosis, hydrocortisone acetate, pathology

(Original article on page 5)

Influence of plasma B-endophin, cAMP, cGMP and PGE2 contents during finger pressure manipulation in treating waist-leg pain

Jiang Hong (姜宏) et al

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RIA method was applied to determine the amount of plasma P-endophin, cAMP, cGMP and PGE2 pre- and posttreatment in 64 cases waist-leg pain patients treated with finger pressure manipulation on acupoints. The results showed that during the instant of releasing of waist pain there was evident of raising of plasma P-endophin($p < 0.05$)in the markedly effective group, but there was no definite change($p < 0.05$) of cAMP, cGMP and PGE2 contents. It is considered that the analgesic effect of manipulation is probably due to selective activity of endo-analgesic system of the organism in promoting increasing of P-endophin.

Key words Finger pressure manipulation radioimmunoassay (RIA), waist-leg pain

(Original article on page8)

Vertebral type of cervical spondylosis treated with traditional Chinese medicine

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One hundred and seventy-five cases of vertebral type of cervical spondylosis were treated by comprehensive therapy of Chinese herbs, Zhi xuan Tang and manipulation with satisfactory results. The total effective rate was 99.4%. The Chinese herbs were modified by Bu Yang Huan Wu Tang and Dao Tan Tang. It bears the action of invigorating Qi and activating blood circulation, eliminating of phlegm and removing stasis, relieving muscular spasm and tranquiling the mind. Manipulation of lifting, shifing and rotating shaking Yao methods on the neck were applied.

Key words Vertebral type of cervical spondylosis, traditional Chinese medicinal therapeutic method

(Original article on page 10)

Analysis of chronic lower third tibia-fibula fracture treated with sliding boneplate transplantation method

Bi Da-wei (毕大卫)et al

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Twenty-one cases of chronic lower third tibia-fibula fracture were treated with modified boneplate sliding transplantation method and external fixator. The results showed that an excellent and good rate was 90.3%. It is superior than traditional transplantation plus long leg plaster of paris fixation.

Key words Fracture of tibia and fibula, bone transplantation, fracture fixator

(Original article on page 12)

Adjustable balancing traction fixator in treating unstable fracture of the tibia and fibula

Jiang Ming-xuan (姜明轩)et al

Tianjin Hospital (300211)

Sixty five cases of unstable fracture of the tibia and fibula were treated with adjustable balancing traction fixator. The results showed that all were healed, average cliuical healing time being 8.4 weeks. The recovery of the function of knee and ankle joints within three months was around 98%. The rate of excellent and good was 92.3%.

Key words Adjustable balancing traction fixator. fracture of the tibia and fibula

(Original article on page 19)