

# 携石膏手法矫正胫腓骨骨折成角畸形 50 例

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**摘要** 我院收治不稳定性胫腓骨骨折 520 例, 大多数病例采用闭合整复的方法治疗。结果发现石膏固定后约有 10% 的病人遗留不同程度的成角畸形。如不矫正将会引起严重的病废。为此, 我们采用传统的方法, 利用石膏支撑结合手法矫正成角畸形 50 例。该法能使成角得到较好地校正, 并能保持骨折不再移位, 功能恢复满意。

**关键词** 胫腓骨骨折 成角畸形 手法矫正

1990 年 3 月~1995 年 4 月我院收治不稳定性胫腓骨骨折 520 例, 主要采用牵引——手法整复——石膏固定治疗, 其中 50 例发生不同程度的成角畸形。利用石膏的支撑配合手法折顶予以矫形, 获得了满意的疗效。现将结果报告如下。

## 临床资料

本组 50 例中, 男 35 例, 女 15 例; 年龄 9~65 岁; 全部为闭合不稳定性骨折; 车祸伤 25 例, 坠落伤 15 例, 溜冰跌伤 10 例; 骨折部位上 1/3 9 例, 中 1/3 18 例, 下 1/3 23 例; 骨折类型: 横型 18 例, 短斜型 10 例, 螺旋型 12 例, 轻度粉碎型 10 例; 畸形角度: 向前内侧成角 16 例, 向后成角 23 例, 向后外成角 11 例; 最大度数 35 度, 最小 15 度, 平均 23 度。

## 治疗方法

全部病例入院后行跟骨牵引, 重量 4~6kg, 持续 3 周左右去牵引, 用长腿石膏固定, 待完全干硬后才能矫形。根据 X 线片测量成角的度数, 并将其放在石膏旁画出骨折部位。一般不需麻醉, 在骨折成角的凹面, 沿石膏圆周 2/3 横形锯断, 利用石膏支撑折顶法矫形, 撑开的石膏间隙安放木块, 如向后成角者, 应放在前面, 向外成角者, 应放在内侧, 向后外成角者, 应放在前内侧, 如此类推。然后拍片检查矫正是否满意, 若矫正角度太小, 可用大一些的木块填入, 若矫正角度太大, 可用小一些的木块填入。最后一张 X 线片证实骨折对位对线良好后, 再用石膏封填加固。固定时间一般 3 个月, 然后改用小夹板固定至骨愈合。

## 结果

全部病例做了随访, 平均 18 个月, 保持对位对线良好者 42 例, 功能对位 8 例。本组中未发现骨不愈合及再移位的病例, 骨愈合时间最短 3 个月, 最长 6.5 个月, 平均 4.5 个月。膝关节功能恢复良好者 45 例, 达 90%。合并症除 3 例针道感染外, 无其他合并症发生。

## 讨论

正常胫骨干并非完全平直, 而是有一向前外侧形

成 10 度左右的生理弧度。运动时膝与踝关节在同一平行轴上活动, 因此, 治疗胫腓骨骨折必须注意防止成角和旋转移位, 以保持正常的生理弧度和使膝、踝关节轴能够平行一致, 以免发生创伤性关节炎。在闭合整复固定的病例中约有 10% 的病人石膏固定后遗留不同程度的成角移位, 一般认为顺生理弧度 10 度以内的成角是可以接受的<sup>(1)</sup>。而与长骨干自然弧度垂直的任何成角都是影响肢体功能的应予矫正<sup>(2)</sup>。如果单纯矫正成角移位而拆除石膏, 手法后更换新石膏, 既繁琐又可能发生其他一些变位。为此, 利用石膏的支撑作用, 配合手法予以矫正, 能较好地掌握矫形的力量和需要矫正的角度, 同时根据复查 X 线片进行适当地调整, 实为简便易行、安全、可靠的方法。本组病例采用此方法, 畸形角度基本上达到了完全矫正或在允许的范围内的角度。

胫腓骨骨折的早期治疗有许多争论, David 等对胫骨干骨折的处理多采用闭合整复的方法, 只有这些方法不能达到满意的效果时才考虑手术<sup>(3)</sup>。对于不稳定性胫腓骨骨折, 单纯外固定不可能维持良好的对位。我们先以轻量持续骨牵引 3 周左右, 待骨折端有纤维愈合后, 除去牵引, 改长腿石膏固定, 因其固定范围超越关节, 胫骨骨折愈合时间长, 常可影响膝、踝关节的功能活动。因此, 在石膏固定 8~12 周, 骨折端已有骨痂形成时, 改用小夹板固定至骨愈合。夹板固定期间, 鼓励病人进行膝、踝关节主动功能锻炼。本组中有 5 例老年患者配合差, 膝关节屈曲功能下蹲障碍外, 其余病人功能恢复均较为满意。

## 参考文献

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18 New Zealand white rabbits were divided randomly into three groups, i. e. group of manipulative treatment, group of fenestration treatment, and the control. Models of intra — osseous high pressure were established by ligating the femoral and inferior gluteal veins. The intraosseous pressure was determined before and after modelling and before specimen was taken, and color Doppler bloodflow detection was made before and after manipulation. The results showed that persistent intraosseous high pressure could efficiently produced by ligation of veins, and the manipulation could decrease the intraosseous high pressure, the resistance index of the distal end of the femoral artery, but increase the systolic peak velocity, the mean velocity and acceleration of blood flow, thus the local hemodynamic condition was improved.

**Key words** Manipulation Knee joint Hemodynamics

(Original article on page 13)

**The Primary Repair of Traumatic Skin Defect in Multiple Fingers Treated with Pedicle Skin Flaps of Opposite Upper Arm**

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32 cases (69 fingers) of traumatic skin defect in multiple fingers with exposed arteries, nerves, tendons, bones or joints had been treated by using the pedicle skin flaps of the opposite upper arm from 1983 to 1994. Among 32 cases, the incised wound was happened in 8 cases, the avulsed wound in 10 cases, and the lacerated wound in 14 cases; two fingers were wounded in 27 cases and three fingers in 5 cases. All of them were emergent cases and the pedicle skin flaps were all alive. Thus the writer considered that this method may be used in emergent case. The earliest time for cutting the pedicle of skin flap was discussed.

**Key words** Pedicle skin flap Multiple fingers Skin defect

(Original article on page 16)

**The Treatment of Fracture of Thoracolumbar**

**Spine with Paraplegia by Anterior Decompression and Internal Fixation**

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21 cases of fracture of thoracolumbar spine with injury of spinal cord or cauda equina had been treated by anterolateral decompression and Kaneda's internal fixation from 1993 to 1996. The results showed that, in addition to 2 cases without change at injury grade A, 19 cases had been improved in the range of 1—3 grades. It is considered that the operation in anterior route can clear away the compressive material under direct vision, and thus the sufficient decompression can be obtained and the integrity of posterior column can not be destroyed. As to the bursting fracture of double vertebral body, the administration of anterior decompression and Kaneda's internal fixation can also obtain a good therapeutic effect.

**Key words** Anterior decompression Internal fixation Fracture Paraplegia

(Original article on page 20)

**Correction of Angular Deformity at Fracture of Tibia and Fibula by Wedging of Cast (A Report of 50 Cases)**

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520 cases of unstable fracture of tibia and fibula had been treated in our hospital during last 5 years. The most of them were healed by closed reduction. Through treatment we found that about 10% patients with fracture of tibia and fibula had angular deformities in various degrees after of cast. The traditional method the wedging of cast was used to correct the angular deformities in 50 cases. The result showed that the angular deformities were corrected better, the redisplacements were prevented, and the satisfactory functions were obtained.

**Key words** Fracture of tibia and fibula Angular deformity Correction of wedging

(Original article on page 25)