

经验交流

腰椎小关节综合征的临床研究

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摘要 对 124 例腰椎小关节综合征的患者进行了病因诊断及手法治疗机理的临床研究。结果表明:腰椎小关节紊乱征好发于 25~45 岁年龄段,多发于下腰段。X 线正侧位线诊断意义不大,斜位线和 CT 有意义。手法治疗效果显著,优良率为 95%。其病理改变主要是滑膜嵌顿,但关节半脱位或因增生牵涉关节囊,刺激神经根也是病因。

关键词 腰椎关节综合征 诊断与治疗

自 1991 年起,对 124 例腰椎小关节综合征的患者,进行了病因、诊断及手法治疗机理的临床研究,现总结如下。

临床资料

本组 124 例中男 73 例,女 51 例;年龄 16~68 岁,以 25—45 岁发病率最高,约占 75%;病程最短一天,最长三月,以 1~7 天者为多,约占 80%;多数患者有外伤史,以腰痛、小关节区压痛、腰后伸试验阳性为主要症状,多伴有放射痛;124 例患者中,病变发生在下腰段的 106 例,约占 85.5%;124 中有 118 例有 X 线正侧位片,64 例加拍了双斜位片,发现关节突轻度错位者 31 例,约占 48%,52 例有 CT 片。

治疗手法

放松手法:患者取俯卧位在脊柱两侧应用掌揉、掌按、推拿等手法,配合点按环跳、承扶、委下、承山、昆仑等穴位,放松肌肉 3~5 分钟,并用指揉法在脊柱两侧的阿是穴压揉数分钟。

治疗手法:首先取俯卧位斜扳法。术者一手掌根按在痛处棘旁,另一手托起痛侧大腿或肩部,使之后伸内收,待患者感到疼痛时,两手同时突然用力,有时可听到复位声,此手法主要解决后伸不利。其次取侧卧位旋扳法,患侧在上,曲膝屈髋,健侧伸直。术者一肘放患者肩部,一肘放环跳穴处,双手交叉来回摇动腰部并令其腰部肌肉放松,当活动至最大范围时,用力作一下稳定的推扳动作。此时往往可听到清脆弹响声,此手法主要是解决滑膜的嵌顿或小关节的半脱位。如果患者有棘突侧偏,在旋扳时术者可用拇指推顶棘突复位。再次取蹲位压旋法,术者立其后,两手分按两肩,患者低头突背,让其放松腰背部肌肉后,两手同时用力下压并向痛侧旋扭其身,可反复 2~3 次,此手法主要解决前屈不足。

治疗结果

— 优:主要症状、体征消失,如原 X 线有阳性改变者,治疗后恢复正常,能从事原工作。良:主要症状、体征基本消失,劳累后腰部有轻度酸困,但不影响工作,X 线正常。可:主要症状、体征有减轻,腰部活动受限,如原 X 线有改变者,复查如故。差:无改变。

按以上标准,124 例患者的治疗效果优 96 例,良 22 例,可 4 例,差 2 例,优良率为 95%。一般治疗 1~3 次,最多 5 次。本组对 71 例患者进行了三月至二年的随访,平均 9 个月。有 16 例复发,占 22.5%,其余 55 例疗效巩固。

讨论

小关节综合征不仅是滑膜嵌顿问题,放射痛是因为小关节发生假性滑脱,失去其稳定性而至半脱位,或小关节增生刺激了骶丛神经根,引起臀上和臀下皮神经支配区域疼痛。据报道^[1],有人将临床诊断为小关节综合征的患者,通过 CT 确诊为小关节间隙变窄者经关节内注射局麻剂及类固醇,腰腿痛症状很快缓解;而 CT 正常或轻度关节突肥大者,注射后无一例症状改善,这就说明疼痛非源自小关节腔内,而来源于腔外,从而证明了部分患者是因小关节失稳或增生引起症状的。

下腰椎的小关节紊乱易引起滑膜嵌顿原因有四:一是由于下腰椎小关节囊的附着部比较靠内侧,离关节突的边缘约 10~13mm,而上腰椎仅 1~2mm^[2],故腰椎在屈伸活动中容易嵌顿滑膜。二是因腰椎前屈时,75%左右是由 L₄ 和 L₅ 参与的^[6],故椎间小关节开口最大,关节内负压也大,易嵌顿滑膜。三是由于下腰椎小关节面是近矢状面,腰段的旋转活动受到其限制,当脊柱屈曲到 50°~60°时^[3],小关节分离,在轻微的旋转暴力作用下,一侧合拢,另一侧加大了分离,并且相对滑

动,故易嵌顿滑膜。四是因下腰椎已开始有退行性改变,椎间隙减小,前突加大,重力后移,小关节受力也开始退变,关节囊变的松弛,故易被嵌真。

目前普遍认为,小关节囊滑膜神经分布丰富,受脊神经后支内、外侧支的双重支配,滑膜受到机械性或化学性刺激后易产生疼痛,故应用手法解除双重刺激的方法其疗效是肯定的。当滑膜被嵌顿受到刺激后,由于神经反射和自体保护反应,导致腰部肌肉的反射性痉挛,又加重了嵌顿刺激,构成了恶性循环。应用放松手法其目的有二:一是解除肌肉痉挛、打断恶性循环。二是消除局部水肿,提高局部痛阈,为治疗手法创造条件。在治疗手法中,俯卧位斜扳手法是利用杠杆原理,以纠正小关节部的前后移位。侧卧位旋扳手法,是通过

被动加大患侧小关节间隙,纠正关节移位,牵拉关节囊壁来达到解脱滑膜的目的。蹲位压旋法,通过被动加大腰椎前屈,使后侧小关节张口,牵拉关节囊,解除嵌顿。旋转是通过加大扭矩的方法,以纠正椎体的旋转移位。

(本文指导:宋贵杰)

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手术治疗踝关节损伤致下胫腓连结分离

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我院自 1988 年~1993 年手术治疗下胫腓连结分离 50 例,效果满意,现报告如下。

临床资料 本组 50 例,男 33 例,女 17 例,年龄 18~48 岁,受伤距手术的间 1 周至 18 个月,合并内外踝骨折 19 例,单独外踝骨折 31 例。

手术疗法 急性下胫腓连结分离采取外踝“J”形切口,长约 8cm,探查一般均可见距腓前韧带断裂,手法牵引复位后用两枚长松质骨螺丝钉,由胫距关节面上方 1cm 处固定一枚,距第一枚螺丝钉 1cm 处再固定一枚。一般下胫腓连接已复位,再用中粗线缝合断裂的距腓前韧带。

陈旧性的下胫腓连结分离,采取踝关节前方纵切口,长约 10cm,切断小腿下端前方横韧带及十字韧带,在胫前肌腱及伸腓长肌腱间隙找到胫前动脉及腓深神经,将其拉向内侧,骨膜下剥离胫骨下端,并显露内、外踝,切开前方关节,显露踝穴,切除下胫腓连结间纤维组织。在外踝作一长约 4cm 的纵切口,暴露胫腓下端,并将其余平行打断,用以上同法将两枚长松质骨螺丝钉固定。

病人一般在术后 4~6 周下地,下地足放平,扶双拐,患肢负重。

治疗结果 本组术后平均随访 10 个月,术后踝关

节活动范围均在 50°~60°,术前疼痛症状消失。X 线复查踝关节正常。

讨论 胫腓骨下端被坚强而有弹性的骨间韧带,胫腓下前后联合韧带及横韧带连结在一起。1. 骨间韧带是踝关节上方骨间膜增厚部分,对稳定胫腓骨,防止距骨间处胫位有重要作用。2. 前下胫腓韧带从胫骨前结到外踝前面的结节,有限制腓骨外旋和向外移位的作用,踝关节骨折脱位的治疗好坏,直接关系到患者今后的工作能力。因为距骨向外移位 1mm,即可减少胫距关节面的接触面积达 42%,使局部关节面承受的压力增倍,其结果引起创伤性关节炎。所以,即便是外踝骨折,只要有骨折移位,距骨必将发生半脱位,踝穴就会失去其正常的解剖生理关系。本组 50 例 X 线片均显示下胫腓连结分离间隙 0.5~1cm,术中发现距骨向外或向前外脱位,外踝明显后移。

手术方式的选择和注意点:1. 术中如发现关节软骨面破坏严重者,应作踝关节融合术。2. 术中根据分离情况可选择螺丝钉或骨栓固定,术中同时将下胫腓连结处骨面凿粗糙,日后可骨性融合。3. 踝部骨折畸形愈合者应一并矫正。

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Abstract of Original Articles

Influence of Bu Yang Huan Wu Tang (BYHWT) on clamp injured rat sciatic nerve axoplasm transportation

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Horseradish peroxidase retrograde labeling method was selected to demonstrate changes of quantity of HRP labelled neurone cytoplasm of L4-5 spinal cord and ganglion. The results indicated that BYHWT can accelerate transportation of rat sciatic nerve axoplasm. Forty eight hours after introduction of HRP, number of labelled cytoplasm of the neuron in BYHWT group is prominently more ($P < 0.05$) than that of the control group, those of the rest few groups were similar ($P > 0.05$) in number. It suggests that the prescription can accelerate transportation of axoplasm of clamped nerve. It is related with improvement of local micro-circulation. It may be one of the mechanism in promoting regeneration of peripheral nerve injury in clinic and experiment.

Key words Sciatic nerve Transportation of axoplasm Bu Yang Huan Wu Tang

(Original article on page 3)

Anatomical study of upper cervical spine and atlantoepistrophic derangement *Zhou Wei, Jiang Weizhuang, Zhang Yongdong, Li Xing, Institute of Orthopaedics and Traumatology, China Academy of TCM (100700)*

Via observation and analysis of upper cervical vertebrae of three cadavers, we consider: 1) Axis is the stress centre of upper cervical spine, commonly atlantoepistrophic derangement is lateral or rotatory deviation; 2) compression and irritation of posterior branches of upper three cervical nerves are the main causes of cervicogenic headache; and 3) strain of vertebral artery between transverse process of atlas and axis is one of the cause of cervicogenic dizziness.

Key words Atlantoepistrophic derangement Cervical nerve Vertebral artery

(Original article on page 5)

Experimental study on local osteoporosis secondary to rigid plate internal fixation with bone histomorphometry *Wu Yu-shi, Lou Si-quan, Dang Geng-ding, Staff and worker Hospital, Baotou Steel and Iron Company, Internal Mongolian (014010)*

Through bone histomorphometrical method, local bone changes of rabbit intact tibia after rigid plate internal fixation was studied. Experimental rabbits were divided into 1, 2, 3, 4 and blank control groups in random, with fixation time in 6, 8, 10 and 12 weeks respectively. Histomorphometrical and tetracycline fluorescence measurement were undertaken in non-decalcified bone tissue sections longitudinally and transversely. The results revealed that there was osteoporosis appeared at 6 weeks in rigid fixating segment. Bone lossing happened at Haver's system, bone absorption revealed after 10 weeks on endosteal surface and enlargement of bone marrow. Osteoporosis and thinning of the cortex on fixating segment, especially under steel plate happened due to negative balance of remodeling process of the two surface of the bone.

Key words Internal fixation Osteoporosis Bone remodeling

(Original article on page 7)

Clinical study on lumbar facet joint syndrome *Li Zhen-yu, et al. Affiliated Hospital of Gansu College of TCM (730000)*

Clinical study of pathogenesis, diagnosis and mechanism of manipulative therapy in 124 patients suffered with lumbar facet joint syndrome. The results indicated that the onset of lumbar facet joint syndrome was happened mostly at 25-45 years of age, and they were found mostly at lower segment. Oblique X-ray film and CT scanning is in significance rather than A-P and lateral view film. The manipulative result is evident, rate of excellent and good was 95%. The pathological change was mainly embedding of synovial membrane, but subluxation of joint or interference of joint capsule due to proliferation and stimulating the nerve