

腰椎间盘突出症35例非手术治疗前后 电子计算机体层摄影分析

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内容提要 本文报告 35 例腰椎间盘突出症患者, 共 36 个盘突出, 经以手法为主的非手术方法治疗后, 临床有效 33 例(94.3%), 电子计算机体层摄影(CT) 扫描复查 6 个盘完全还纳, 24 个盘部分还纳, 手法还纳的成功率为 83.3%。认为突出的椎间盘还纳是临床疗效的重要因素。

关键词 腰椎间盘突出 手法 电子计算机体层摄影

高分辨的 CT 能较准确地显示腰椎间盘突出症的形态、大小、密度以及突出物与周围结构的关系, 确诊率高, 因而受到普遍重视^[1,2]。我们于 1985 年 12 月~1989 年 6 月应用非手术方法治疗腰椎间盘突出症, 现将 35 例 CT 复查病例作一分析, 并探讨腰椎间盘突出症的手法还纳问题。

临床资料

本组 35 例中, 男 24 例, 女 11 例; 年龄 21~65 岁, 其中 21~29 岁 4 例, 29+~49 岁 25 例, >49 岁 6 例; 病程 10 天~15 年不等, 其中 <1 个月 4 例, 1 个月~1 年 24 例, >1 年 7 例。所有病例均用西德 Somatom DR₃ 型 CT 机, 先作腰骶椎侧位定位扫描, 使扫描层面平行于 L₅~S₁、L₄~L₅、L₃~L₄, 然后从下一椎体上缘起至上一椎体下缘止, 自动连续横断扫描。扫描参数相同: 125kV, 520mA·s, 层厚 4mm, 矩阵 512×512。部分病例增加重迭扫描和矢状面、冠状面重建(Reconstruction)。

全组 35 例中有 36 个盘突出(L₄~L₅ 间盘 21 个, L₅~S₁ 间盘 15 个), 其中后正中突出(中央型) 8 个盘, 后外方突出 28 个盘(左后型 16 个, 右后型 12 个)。突出间盘前后径平均 6.3mm (3.2~12.6mm), 横径 18.6mm (8.5~33.0mm), CT 值平均 74.47HU。35 例患者中有 30 例存在合并征象, 其中合并硬膜囊、神经根

受压 16 例, 黄韧带肥厚 5 例, 侧隐窝堵塞 7 例, 椎管狭窄 2 例。

治疗方法

全部病例均住院, 采用郑氏手法治疗为主^[3]。嘱患者俯卧, 先在腰背部、臀部、下肢等部位作大面积的按摩, 力量由轻入重, 并选肝俞、脾俞、十椎旁等穴作经穴按摩, 以解除肌肉痉挛、减轻疼痛; 继而依病情选用侧卧引伸法、俯卧按压法和屈髋屈膝牵抖法等手法以还纳突出间盘; 最后以轻手法广泛按摩腰臀部位, 并以补法点穴取肝俞、胆俞、跟外等穴, 手法由重到轻结束治疗。每日治疗 1 次, 4 周为 1 个疗程。部分病例适当配合机械牵引、针灸和内外用药等辅助治疗。

结果

根据文献疗效标准^[4], 治愈 18 例(症状完全消失或接近消失, 直腿抬高试验可达 85°, 能恢复原工作); 显著进步 11 例(症状大部分消失, 直腿抬高试验超过 70°, 可恢复原工作); 好转 4 例(症状部分消失, 直腿抬高试验显著改善, 可担任较轻工作); 无效 2 例(症状无明显减轻, 不能参加工作)。优良率和有效率分别是 82.9% 和 94.3%。

所有病例作了 CT 追踪复查, 复查间隔时

间平均 153 天(13 个月), 结果突出间盘完全还纳 6 个, 基本还纳 11 个(前后径×横径的数值<治疗前 1/2), 部分还纳 13 个(前后径×横径的数值<治疗前 1/2 或以下), 突出间盘无改变 6 个, 有效间盘共有 30 个(83.3%)。在有合并征象的 30 例中, 复查表明 21 例合并征象消失, 尚有硬膜囊、神经根受压 2 例, 黄韧带肥厚 2 例, 侧隐窝堵塞 3 例和椎管狭窄 2 例仍存在。

本组 36 个突出间盘中 6 个盘(16.7%) 完全还纳, 24 个盘(66.7%) 基本还纳或部分还纳。我们测量了该 24 个盘治疗前后的大小, 治疗后突出间盘的前后径平均减小 2.9mm(1.0~5.8mm), 横径减小 7.5mm(2.3~15.4mm), 前后径×横径值平均减小 7.23mm²(2.0~12.9mm²)。测量了 20 个间盘在治疗前的 CT 值和其中 13 个盘在治疗后的 CT 值, 由治疗前的 75.76HU(53.60~97.00HU) 下降到治疗后的 59.91HU(31.00~77.00HU), 平均减少 15.85HU。本组突出物完全还纳的 6 例中, 治愈 5 例, 显著进步 1 例; 基本还纳和部分还纳的 23 例中, 治愈和显著进步 20 例; 突出盘无改变的 6 例中, 显著进步 3 例, 好转 1 例(此 4 例合并的硬膜囊、神经根受压和黄韧带肥厚均得到了不同程度的改善), 无效 2 例。

讨 论

一、Mathews 曾用造影方法观察了 14 例推拿复位的病例, 5 例显示突出物明显复位⁽⁵⁾; Teplick 等报告了 CT 证实突出的髓核自行还纳的病例⁽⁶⁾。本结果手法还纳使突出间盘还纳的有效率为 83.3%, 可见腰椎间盘突出后是能够用合理的手法使之还纳复位的。

二、本组临床疗效优良率为 82.8%, 有效率 94.2%, 与文献报道大体相同^(4,7)。但突出间盘还纳好的病例组中, 临床疗效也较好, 说明突出间盘还纳是临床疗效的关键。在突出间盘无改变的 6 例中, 2 例无效, 其中 1 例因病程较长 CT 见椎间盘向后均匀膨出, 突度 6.4mm, 呈浅大弧度, 片累及椎孔外方, 左侧有钙化点, CT 值 158HU, 左侧黄韧带肥厚(5.3mm),

左神经根受压, 后经手术切除, 术中观察与 CT 结果一致; 另 1 例亦为突出物及其周围结构无改善。3 例显著进步, 其中 2 例系骨性椎管狭窄, 1 例黄韧带肥厚, 尽管突出间盘有不同程度的还纳, 但终因有合并损害的存在而疗效不满意。在 30 例有合并征象的病例中, CT 复查有 9 例未获改善, 其中有 2 例系手法不能解决的骨性椎管狭窄。可见, 还纳突出间盘是影响临床疗效的重要因素, 但不是唯一因素⁽⁸⁾。

三、一般认为, 中央型突出不应考虑非手术治疗。本组病例中央型突出 8 例, 治疗后突出间盘完全还纳 1 例, 基本还纳 4 例, 部分还纳 1 例, 该 6 例临床疗效为治愈和显著进步。突出物还纳无改变 2 例, 其临床疗效亦为全组病例中无效者。因而我们认为中央型突出仍可选择非手术还纳方法使其缩小和(或)松解神经根、硬膜囊的受压、粘连。对病程长, 症状反复发作, CT 检查见有合并骨性椎管狭窄或(和)较大突出脱垂, 硬膜囊、神经根受压、粘连, 黄韧带肥厚等则应考虑手术治疗为主。

本组在病例选择上一律以临床诊断与 CT 诊断相一致作为标准, 以尽量避免或减少由于 CT 本身尚存在的一些不足之处所造成的误差⁽²⁾。

参 考 文 献

1. Fries JW, et al. Computed Tomography of herniated and extruded nucleus pulposus. J Comp Assist Tomog 1982; 6:874.
2. 吴世樵, 等。CT 扫描在诊断腰椎间盘突出症中的应用。中华骨科杂志 1989; 9:118.
3. 郑怀贤。伤科按摩术(修订本)。第 1 版。成都: 四川人民出版社, 1980:125.
4. 胡有谷。腰椎间盘突出症。第 1 版。北京: 人民卫生出版社, 1985:213.
5. Mathews JA, et al. Reduction of the lumbar disc prolapse by manipulation. Brit Med J 1969; 3: 696.
6. Teplick JG, et al. Spontaneous regression of herniated nucleus pulposus. AJR 1985; 145:371.
7. 侯筱魁, 等。腰椎间盘突出症推拿治疗与年龄的关系。中医骨伤科杂志 1987; 3:3.
8. 刘春生, 等。推拿治疗腰椎间盘突出症的疗效、方法及机制的初步探讨。天津医药杂志(骨科附刊) 1984; 8: 167.

The Clinical and CT Analysis of 35 Cases of Lumbar Disc Herniation before and after Non-Operative Treatment

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35 cases of lumbar disc herniation were examined by clinical diagnosis and CT scanning. The results showed that there were 36 disc herniation (1 case of dual disc herniation). The radius vector of disc was 6.3 mm and the transverse diameter was 18.6 mm. There were 30 cases with sac of dura mater of spinal cord or nerve roots pressed and adhesive, yellow ligaments pachismus, lateral recessus filling and narrow bony lumbar vertebral canal. All patients were treated by means of manipulation. The clinical results showed that 29 cases (82.8%) had superior effects and 33 cases were effective. The clinical effective rate was 94.2%. CT rescanning showed that disc reposition completely returned was 6 cases, and partially returned was 24 cases. The successful rate of the reposition by manipulation was 83.3%. The clinical analysis and CT showed that herniation of lumbar disc could be repositioned by means of manipulation. The reposition of herniation of disc was a key factor in clinical results but was by no means the only one. With regard to long duration of illness, repeated invasion, combined narrow bony lumbar vertebral canal, and non-improved central type herniation after a long period of treatment, the herniation of disc should be treated by operation.

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Effects of Nifedipine and *Paeonia lactiflora* on Plasma TXB₂ and 6-Keto-PGF₁α in Cholesterol-fed Rabbits

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The authors examined the influences of nifedipine and *Paeonia lactiflora* (PL) on plasma LPO, TXB₂ and 6-keto-PGF₁α in cholesterol-fed rabbits. In this study, oral administration of nifedipine (15 mg/kg per day) and PL (0.5 g/kg per day) with 2% cholesterol diet for 15 weeks caused 60.75% and 74.24% reduction in the lesion area of aorta respectively. The levels of plasma LPO, TXB₂, cholesterol, phospholipid and calcium of the intimalmedia of the aorta in the treated groups were significantly lower than those in the control group, but the level of 6-keto-PGF₁α in the treated groups was significantly higher. The durations of TXB₂ elevation and 6-keto-PGF₁α reduction were delayed. The ratio of TXB₂/6-keto-PGF₁α tended to balance. The ratio of TXB₂/6-keto-PGF₁α was significantly positive correlation with the percentage of lesion area of the aorta. It is demonstrated that calcium metabolism plays an important role in thromboxane, prostaglandin, and LPO synthesis. In conclusion, the inhibition of LPO production and the regulation of TXA₂-PGI₂ balance may be one of the mechanisms of anti-atherogenesis of calcium antagonists and PL.

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The Changes of Cyclic Nucleotides and Its Enzymes in the Spleen and Plasma of Similar Spleen Deficiency Rats Induced by Rhubarb and the Readjusting Function of Yiqi Jianpi Decoction (益气健脾汤)

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In order to investigate the nature of Spleen deficiency and the mechanism of immunodepression due to Spleen deficiency and explore the pharmacological action of Chinese drugs of Yiqi Jianpi decoction(YQJP), the authors had established the rats model by abministration Rhubarb. The preliminary results demonstrated that the symptoms manifested in rats were similar to those of Spleen deficiency syndrome. The changes of cyclic nucleotides in the spleen and plasma were