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·临床研究·

血清三酰甘油水平与腰椎融合术后早期疼痛的关系

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[摘 要] **目的** 探讨血清三酰甘油水平与腰椎融合术后早期疼痛的关系。**方法** 选择2016年3月至12月于我院行腰椎单节段融合术的患者79例,根据患者术后疼痛程度分为轻度疼痛组32例,中度疼痛组47例。比较2组患者术后3 d三酰甘油水平差异。利用Pearson相关分析判断三酰甘油与疼痛的相关性,并使用Logistic回归分析术后早期疼痛的危险因素。**结果** 中度疼痛组患者的三酰甘油水平高于轻度疼痛组,差异具有统计学意义($P<0.05$),三酰甘油水平与术后疼痛呈显著正相关,为术后疼痛的独立危险因素。**结论** 高血清三酰甘油水平是腰椎单节段融合术后早期疼痛的危险因素,在围手术期处理中应予以调整。

[关键词] 三酰甘油;腰椎融合术;脂代谢紊乱;术后疼痛;腰椎管狭窄症;腰椎间盘突出症

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Relationship between level of serum triglyceride and early pain after posterior lumbar interbody fusion

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Abstract: Objective To investigate the relationship between the level of serum triglyceride and early pain after posterior lumbar interbody fusion. **Methods** A total of 79 patients who were admitted into our hospital from March 2016 to December 2016 were selected into the study, and these patients were divided into two groups according to the degree of pain which means 32 cases in the minor pain group and 47 cases in the intermediate pain group. The difference of serum triglyceride level 3 days after operation were compared between the two groups. Pearson correlation analysis was performed to test the correlation between the level of serum triglyceride and early post-surgical pain. Logistic regression analysis was performed to test the risk factors for early post-surgical pain. **Results** The data indicated the level of pain was significant higher in the intermediate pain group than that of the minor pain group. Level of serum triglyceride had a significantly positive correlation with the level of post-surgical pain and it was the risk factor of pain after posterior lumbar interbody fusion. **Conclusion** The level of serum triglyceride is the risk factor of early post-surgical pain of lumbar single level interbody infusion, and it should be adjusted in the perioperative treatment.

Keywords: triglyceride; lumbar interbody fusion; dyslipidemia; post-operative pain; lumbar spinal stenosis; lumbar disc disease

腰椎融合术是目前治疗50岁以上严重腰椎管狭窄症、腰椎间盘突出症患者的常规治疗方法之一[1-4]。术后早期疼痛程度与患者的依从性密切相关,会影响患者的早期功能锻炼,一些患者由于术后疼痛,不愿遵医嘱行康复训练,甚至导致深静脉血栓、褥疮等卧床并发症的发生,严重影响治疗效果和患者满意度。同时,随着术后无痛理念的发展,减轻甚至消除患者腰椎融合术后疼痛也是脊柱外科医生最为关心的问题之一。因此,分析术后疼痛的危险因素具有十分重要的临床意义。由于脂代谢紊乱与全身的无菌性炎症关系密切,且与骨关节炎等骨科退行性疾病的发生发展存在紧密关系[5-8],而三酰甘油(TG)是临床上最常检测的脂代谢指标之一,那么三酰甘油是否与术后早期疼痛存在关系呢?为此,本文回顾性分析了2016年3月至12月我院79例行单节段腰椎融合术患者的临床资料,分析其三酰甘油水平与腰椎融合术后早期疼痛的关系,以期为代谢紊乱腰椎退行性疾病患者的围手术期处理提供一些新的思路。

1 资料与方法

1.1 临床资料

本组患者79例,其中男32例(40.5%),女47例(59.5%),平均年龄(60.34±10.35)岁。高血压患者44例(55.7%),糖尿病患者18例(22.8%);吸烟患者17例(21.5%),饮酒患者9例(11.4%)。纳入标准:①年龄不小于50岁;②确诊为单节段腰椎管狭窄症或腰椎间盘突出症,有明确腰椎融合术指征;③病例资料

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完整。排除标准:①既往有调血脂药、中药服药史及长期镇痛药服药史;②需进行多节段融合;③病历资料不全;④患有风湿、类风湿等自身免疫性疾病;⑤既往有明确外伤史。患者术后均接受相同成分的正规镇痛治疗。研究收集的数据包括人口统计学资料、危险因素、血压、血糖、脂代谢指标等参数。

1.2 资料收集方法

通过病历记录收集饮酒、吸烟史。入院后的首次空腹检测结果作为研究数据。血脂检验仪器为 Beckman Coulter AU2700 全自动生化分析仪,检测试剂使用北京九强生物技术有限公司产品。术后早期疼痛的定义为术后 3 d 时的疼痛情况。体质量指数(body mass index, BMI)的计算公式为体质量(kg)/身高$(m)^2$。采用视觉模拟评分(VAS 评分)标准评判术后的疼痛程度,0 分为无痛,1 ~3 分为轻度疼痛,4 ~6 分为中度疼痛,7 ~9分为重度疼痛,10 分为极度疼痛。根据 VAS 评分结果将患者分为轻度疼痛组(32 例)和中度疼痛组(47 例),分析比较 2 组患者基本资料及疼痛相关因素。

1.3 统计学方法

应用 IBM SPSS 19.0 统计学软件进行统计学分析,连续变量资料使用均数 ± 标准差($\bar{x} \pm s$)表示。计数资料采用 χ^2 检验,计量资料采用独立样本 t 检验。采用 Pearson 相关性分析判断两连续变量因素之间的相关性。采用二元 Logistic 回归分析腰椎术后早期疼痛的危险因素。$P<0.05$ 为差异有统计学意义。

2 结果

2.1 一般资料比较

2 组患者在年龄、性别、BMI、高血压、吸烟、血糖(Glu)和胆固醇(TC)等方面比较,差异无统计学意义($P>0.05$),2 组患者三酰甘油(TG)水平比较,差异具有统计学意义($P<0.05$),见表 1。

表 1 2 组患者人口学统计资料

组别	年龄(岁)	男性[例(%)]	BMI(kg/m^2)	高血压[例(%)]	Glu(mmol/L)	吸烟[例(%)]	TC(mmol/L)	TG(mmol/L)
轻度疼痛组($n=32$)	62.47 ±11.76	11(34.38)	24.07 ±3.34	17(53.13)	5.84 ±2.57	8(25.00)	4.77 ±1.25	1.31 ±0.60
中度疼痛组($n=47$)	58.89 ±9.12	21(56.76)	25.35 ±2.92	27(57.44)	6.03 ±2.14	9(19.15)	4.94 ±0.91	2.15 ±2.22
t/χ^2	1.520	0.144	-1.799	0.144	-0.344	0.386	-0.715	-2.072
P	0.133	0.360	0.076	0.704	0.732	0.534	0.477	0.042

2.2 三酰甘油与术后疼痛的相关性分析

为了研究三酰甘油是否与患者术后早期疼痛相关,我们对表 1 中的常见参数进行了 Pearson 相关性分析,发现血清三酰甘油水平与术后疼痛程度呈正相关关系,且差异具有统计学意义($r=0.230$,$P=0.042$),而 BMI、血糖、胆固醇则与术后疼痛无明显相关性,见表 2。

表 2 血清三酰甘油与相关参数的相关性分析

相关参数	r	P
疼痛程度	0.230	0.042
BMI	0.180	0.113
Glu	-0.009	0.940
TC	0.208	0.066

2.3 三酰甘油是术后早期疼痛的危险因素

为了找到术后早期疼痛程度的危险因素,我们对常用的几种血脂指标进行了 Logistic 回归分析,结果发现三酰甘油是术后早期疼痛的独立危险因素,在校正年龄、BMI 和性别后,三酰甘油仍然是独立危险因素(校正 $OR=2.947$,$P<0.05$),见表 3。

表 3 Logistic 回归分析 OA 预测指标的 *OR* 值

OA 预测指标	粗略 *OR*(95% *CI*)	*P*	校正 *OR*(95% *CI*)	*P*
TG	2.939(1.365 ~6.382)	0.006	2.947(1.332 ~6.523)	0.008
Glu	1.023(0.814 ~1.285)	0.846	1.051(0.837 ~1.318)	0.670
TC	0.916(0.564 ~1.489)	0.724	0.906(0.545 ~1.504)	0.000
吸烟	0.636(0.184 ~2.196)	0.474	0.264(0.050 ~1.393)	0.701

3 讨论

腰椎作为主要的承力结构,容易出现退化改变并伴随疼痛等症状。既往研究表明,腰椎退行性疾病的疼痛发生与局部炎症相关[9-10]。而由于代谢紊乱与肥胖、糖尿病、无菌性炎症等具有直接的关系,因此,其在骨科退行性疾病中的作用越来越受到重视。

由于腰椎融合术后的早期疼痛会明显影响患者的治疗依从性、满意度以及术后的康复效果,因此本研究旨在分析长期脂代谢紊乱是否会通过影响内环境而影响术后早期的疼痛程度。在 2 组病例中,我们发现术后中度疼痛患者血清三酰甘油的水平明显高于轻度疼痛患者,并且血清三酰甘油的水平与术后的疼痛程度呈显著的正相关,提示三酰甘油对术后的早期疼痛有

直接的影响,数项研究发现三酰甘油水平与肿瘤坏死因子α(TNF-α)的水平明显相关[11],而后者与腰椎退行性疾病的疼痛具有直接关系[12-16],这些研究为我们的研究结果提供了理论支持,我们推测高三酰甘油可能促进腰椎退变部位局部 TNF-α 等炎症因子的释放,从而引起局部疼痛。另一方面,炎症因子的长期作用会加剧病变部位的组织变性,引起瘢痕增生等[17-20],增加手术难度,加重创伤程度,从直接和间接两方面导致术后早期的疼痛加重。

由于肥胖等因素亦可导致腰椎退行性变,并引起疼痛等相关临床表现[9,21-24],因此,为了明确该影响是否是通过肥胖等其他间接因素引起的,我们分析了 BMI、血糖和三酰甘油之间的相关性,发现 BMI、血糖与三酰甘油之间无明显相关性,提示三酰甘油是引起腰椎融合术后早期疼痛的直接因素。同时,我们通过 Logistic 回归分析发现只有三酰甘油是腰椎融合术后早期疼痛的危险因素,且在校正了年龄、性别、BMI 等混杂因素后仍具有统计学意义。因此,我们认为三酰甘油与腰椎融合术后的早期疼痛具有独立的显著关系,是其主要的危险因素。

腰椎融合术是临床治疗腰椎退行性疾病常见的手术方式[25]。本研究首次分析了血清三酰甘油水平与腰椎融合术后早期疼痛的关系,提示临床上对高三酰甘油患者施行腰椎手术前,控制其脂代谢紊乱可能有助于缓解术后早期疼痛,利于术后康复,是对既往研究的更进一步深入,不但证实三酰甘油与术后疼痛的相关性,同时进一步证明其是引起术后早期疼痛的独立危险因素。

但本回顾性研究具有以下局限性:首先样本数较少,仍需要大样本量研究系统分析脂代谢指标在腰椎融合术后早期疼痛中的作用。其次,由于本研究中的饮酒患者人数较少,因此没有分析饮酒与三酰甘油水平乃至术后疼痛程度的关系,而饮酒是引起三酰甘油升高的重要因素之一,且可能对疼痛有一定的影响,因此在未来的研究中应将此作为混杂因素进行充分考虑。但是本研究纳入病例仍达到了进行统计学计算的样本量,因此本结果具有可信的参考意义,为后续的研究提供了一定线索以及研究基础,也为临床治疗提供了新的思路。

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·临床研究·

切开挂线术与切开引流术治疗肛周脓肿的疗效对比

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[摘 要] **目的** 探讨切开挂线术与切开引流术治疗肛周脓肿的疗效差异。**方法** 将2015年6月至2016年6月在我科确诊患有肛周脓肿并首次行治疗的150例患者作为研究对象,根据手术方法将其分成观察组(75例)与对照组(75例),观察组接受切开挂线术治疗,对照组接受切开引流术治疗。观察对比2组患者总体治疗效果、手术时间、术后恢复时间、住院时间、住院费用、创面愈合时间及术后并发症等。**结果** 2组患者总体治疗效果差异无统计学意义($P>0.05$);观察组手术时间、术后恢复时间、住院时间、住院费用、创面愈合时间均明显优于对照组,差异有统计学意义($P<0.05$);观察组患者肛瘘发生、脓肿复发等并发症发生率明显低于对照组,差异有统计学意义($P<0.05$)。**结论** 切开挂线术治疗肛周脓肿与切开引流术相比,临床效果更显著,术后并发症更少,脓肿复发率更低,可作为临床治疗肛周脓肿的首选方法。

[关键词] 切开挂线术;切开引流术;肛周脓肿;并发症

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Comparison of curative effect between incision-thread-drawing procedure and traditional incisional drainage for perianal abscess

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Abstract: Objective To explore the difference of the curative effect between incision-thread-drawing procedure and traditional incision drainage in the treatment of perianal abscess. **Methods** A total of 150 patients diagnosed with perianal abscess and treated at the first time from June 2015 to June 2016 in our department were selected as the research object in this experiment, who were divided into the observation group(75 cases) and control group(75 cases) according to the surgical method. Patients in the observation group were performed with incision-thread-drawing procedure, while the control group were treated by traditional incision drainage. The overall treatment effect, operation time, postoperative recovery time, hospital stay, hospital costs, wound healing time and postoperative complications between the two groups were observed and compared. **Results** The difference of the overall treatment effects between two groups were not statistically significant ($P>0.05$). The operation time, the postoperative recovery time, the hospitalization time and the cost, the time of wound healing of observation group were significantly better than the ones of the control group, the differences were statistically significant($P<0.05$). The recurrence

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