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论著

精索静脉高位结扎术改善弱精子症患者精子DNA完整率的临床研究

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摘要： 目的：观察精索静脉曲张高位结扎术对弱精子症患者精子DNA完整率的影响.方法：取配偶怀孕后半年内正常精液标本30例测定精液常规及精子DNA完整率做预试验,其数值拟做对照参考指标.收集2009年4月至2011年4月在重庆医科大学附属第二医院泌尿外科就诊的弱精子症伴精索静脉曲张患者56例术前1周和精索静脉高位结扎术后3个月的精液标本,比较术前和术后3个月精液常规和精子DNA完整率的变化.结果：精索静脉高位结扎术后3个月,与术前比较患者精子DNA完整率和精液常规指数有明显改善($P < 0.05$).开放手术与腹腔镜手术比较,单侧精索静脉曲张组与双侧精索静脉曲张组比较,Ⅰ度、Ⅱ度、Ⅲ度精索静脉曲张患者之间比较术后精子DNA完整率差异均无统计学意义($P > 0.05$).术后半年内53例手术患者中配偶怀孕27人(50.9%).怀孕组与未怀孕组男子精子DNA断裂指数分别为(13.90±9.70)%,(20.10±10.27)%,两者比较差异具有统计学意义($P < 0.05$).结论：精索静脉高位结扎术能有效地改善弱精子症伴精索静脉曲张患者精子DNA完整率,与手术方式、精索静脉曲张单侧还是双侧及精索静脉曲张严重程度无明显关系.

关键词： 精索静脉高位结扎术 弱精子症 精子DNA完整率

High ligation of varicocele improves sperm DNA integrity in patients with asthenospermia

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Abstract: Objective: To assess how high ligation of varicocele improves sperm DNA integrity in patients with asthenospermia. Methods: The DNA fragmentation index (DFI) and semen analysis were conducted in 30 subjects with normal sperm samples, and the parameters were used as references. Fifty-six patients from the Department of Urology of the Second Affiliated Hospital of Chongqing Medical University from April 2009 to April 2011 all signed the informed consent. Semen was collected 1 week before the high ligation of varicocele and 3 months after the surgery. We compared the change of the integrity of sperm DNA and semen. Results: Three months after the high ligation of varicocele, DFI and semen indexes significantly improved ($P < 0.05$), but no significant difference was found between open surgery and laparoscopic surgery, unilateral varicocele and bilateral varicocele and Grade Ⅰ, Grade Ⅱ, Grade Ⅲ varicocele ($P > 0.05$). Six months later, 27 spouses were pregnant out of the 53 surgical patients (50.9%). DFI of the pregnancy group and the non-pregnancy group was (13.90±9.70)% and (20.10±10.27)%, with significant different ($P < 0.05$). Conclusion: Varicocelectomy can improve the sperm DNA integrity in patients with asthenospermia, whose effect is not related to surgical approach, unilateral or bilateral varicocele or varicocele grade.

Keywords: varicocelectomy asthenospermia sperm DNA integrity

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