

论文

倾向指数法在HCC治疗方式疗效对比中应用

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摘要:

目的 利用倾向指数法匹配混杂因素,对动脉化疗栓塞术(TACE)和动脉化疗栓塞术结合三维适形放射治疗术(TACE+3DCRT)2种治疗方式治疗原发性肝癌(HCC)的疗效和预后进行对比分析,探讨倾向指数法在平衡混杂因素中的应用。**方法** 山东省肿瘤医院获得HCC患者681例,其中TACE组患者339例,TACE+3DCRT组患者342例;采用logistic回归模型计算HCC患者的倾向指数,然后按照倾向指数进行组间卡钳匹配,对匹配前后的数据进行生存分析。**结果** 倾向指数法进行匹配后,年龄、Child-Pugh分级、有无门静脉癌栓、HBsAg阳性等协变量达到了均衡;TACE组和TACE+3DCRT组的1年生存率分别为65.4%、79.7%,2年生存率分别为47.4%、60.9%,3年生存率分别为28.7%、36.7%,中位生存期分别为1.672、2.681年;log-rank检验结果显示2组生存曲线间差异有统计学意义($P=0.006$)。**结论** TACE+3DCRT治疗方法对HCC的治疗效果优于单纯TACE治疗;倾向指数法能有效降低组间的混杂偏倚,从而对HCC治疗方式的预后疗效做出正确评价。

关键词: 倾向指数 原发性肝癌(HCC) 疗效 生存分析

Application of propensity score method in evaluation on therapeutic effect of primary hepatocellular carcinoma

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Abstract:

Objective To analyze therapeutic effects of transcatheter arterial chemoembolization(TACE) with or without three dimensional conformal radiotherapy(3DCRT) in hepatocellular carcinoma(HCC) patients based on balancing the covariates with propensity score method,and to explore the application of propensity score method.Methods A total of 681 HCC patients treated by TACE(339 cases) or TACE+3DCRT(342 cases) were collected from Shandong Tumor Hospital.The propensity score was calculated by logistic regression model and caliper matching was carried out according to the propensity score.And then the matched data were subjected to survival analysis.Results After propensity score matching,age,Child-Pugh grade,vein tumor thrombus,and status of hepatitis B virus surface antigen were balanced.The one-,two-,and three-year survival rate of TACE and TACE+3DCRT were 65.4% and 79.7%,47.4% and 60.9%,28.7% and 36.7% and the median survival time of TACE and TACE+3DCRT were 1.672 and 2.681 year,respectively.Log-rank test showed significant differences in the survival rates between the two groups($P=0.006$).Conclusion The therapeutic effect of TACE plus 3DCRT is superior to that of TACE.Propensity score method could effectively reduce the confounding bias and make more accurate evaluation on therapeutic effect in HCC patients.

Keywords: propensity score hepatocellular carcinoma curative effect survival analysis

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