肠道菌群失调、炎症因子变化、维生素缺乏与肝癌患者根治术后复发的关系

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Title: The relationship between intestinal flora imbalance，inflammatory factor changes，vitamin deficiency and recurrence after radical operation in patients with liver cancer

作者: 皮丽娜[1]；候艳莹[1]；张 维[2]

1.湖北文理学院附属医院，襄阳市中心医院普外二科，湖北 襄阳 441000；2.新乡医学院第一附属医院普外科，河南 新乡 453041

Author(s): Pi Lina[1]; Hou Yanying[1]; Zhang Wei[2]

1.Second Department of General Surgery，Xiangyang Central Hospital,Affiliated Hospital of Hubei University of Arts and Science，Hubei Xiangyang 441000，China;2.Department of General Surgery,First Affiliated Hospital of Xinxiang Medical College,Henan Xinxiang 453041,China.

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摘要: 目的：观察肝癌根治术后患者肠道菌群失调、炎症因子水平及维生素水平，分析其与术后复发的相关性。方法：选取2015年6月至2017年6月于我院行肝癌根治术患者120例，随访1年后，按照复发情况分为复发组和无复发组，测定两组患者的肠道菌群情况、炎症因子和维生素水平，采用Pearman相关性分析法对肠道细菌总负荷、炎症因子、维生素水平与AFP的相关性进行分析，P<0.05为差异有统计学意义。结果：复发组和无复发组在年龄、性别、基础肝脏疾病、肝功能分级、手术切除方式、术中肝门是否阻断、肿瘤最大直径及术后是否化疗等方面差异无统计学意义；复发组的炎症因子（PCT、CRP、IL-6）水平明显高于无复发组（P<0.05）；复发组的AFP、AKP、ALT水平明显高于无复发组（P<0.05）；复发组的维生素水平（25-羟维生素D3、维生素B12及维生素C）明显低于无复发组（P<0.05）；复发组的细菌总负荷明显高于无复发组，其中双歧杆菌和乳酸杆菌两种益生菌菌种水平明显低于无复发组；细菌总负荷（r=0.792，P<0.001）、CRP（r=0.724，P<0.001）与AFP呈正相关，维生素C水平（r=-0.663，P<0.001）与AFP呈负相关。结论：肝癌术后是否复发与肠道菌群失调、炎症因子变化及维生素缺乏有着密切的关系。

Abstract: Objective：To analyze the relationship between recurrence of liver cancer after radical resection and postoperative flora dissonance，inflammatory factor level and vitamin deficiency.Methods：120 patients were selected after radical resection of liver cancer in our hospital from June 2015 to June 2017.After one year of follow-up，recurrence was divided into recurrence group and non-recurrence group.Intestinal flora，inflammatory factors，liver function，and vitamin levels were measured in both groups.The correlation between total intestinal bacterial load，inflammatory factors，vitamin levels and AFP was analyzed by pearman correlation analysis.Results：The levels of inflammatory factors (PCT，CRP，IL-6)，AFP，ALT and AKP were significantly higher in the relapse group than in the non-recurrence group (P<0.05).The vitamin levels of the relapse group (25-hydroxyvitamin D3，vitamin B12 and vitamin C) were significantly lower than those of the non-recurrence group (P<0.05).The total bacterial load of the recurrent group was significantly higher than that of the non-recurrent group，and the level of two probiotics，bifidobacterium and lactobacillus，was significantly lower than that of the non-recurrent group.Total bacterial load (r=0.792，P<0.001) and CRP (r=0.724，P<0.001) were positively correlated with AFP，while vitamin C level (r=-0.663，P<0.001) was negatively correlated with AFP.Conclusion：The recurrence of liver cancer after operation is closely related to the imbalance of intestinal flora，changes of inflammatory factors and vitamin deficiency.

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备注/Memo: -

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