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论著

应用二氧化碳进行结肠镜检查的安全性与有效性评价

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摘要

目的：评价应用二氧化碳(CO2)进行结肠镜检查的安全性与有效性。方法：将349例患者随机分成CO2组（n=174）和空气组（n=175），分别注入CO2或空气进行结肠镜检查。在结肠镜检查前、检查中及检查后测量患者呼气末二氧化碳分压［p(ET CO2)］，以了解体内CO2潴留情况。采用视觉模拟评分量表（VAS）对结肠镜检查结束时及检查后1，3，6和24 h腹痛严重程度进行评分。结肠镜检查前、检查中不常规应用镇静剂与镇痛剂。结果：CO2组与空气组在平均年龄、性别构成、结肠镜检查操作时间及到达回盲部百分率等方面的差异无统计学意义(均P>0.05)。两组间结肠镜检查中及结束后各时间点的p(ET CO2)值均无统计学差异(均P>0.05)，但CO2组在结肠镜检查结束后各个时点的平均VAS分值较空气组均明显降低(均P<0.05)。CO2组检查后1，3，6和24 h腹痛VAS分值为0者的百分率明显高于空气组（均P<0.01）。结论：注入CO2进行结肠镜检查既不会引起患者CO2潴留，又能明显减轻腹痛。因此它是一种安全有效的检查方法。

关键词　结肠镜；二氧化碳；临床随机对照试验；腹痛

分类号

Safety and efficacy of carbon dioxide insufflation during colonscopy

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Abstract

ObjectiveTo assess the safety and efficacy of carbon dioxide (CO2) in colonoscopy examination. MethodsWe randomized 349 patients to undergo colonoscopy with insufflation of air (n=175) or CO2 (n=174). At colonoscopy, p(ET CO2) was observed at 4 time points: before the exam, arrived caecum, back rectum, and after the exam. Patient's experience of pain in the end and after the examination at 1,3,6, and 24 h was registered using a visual analog scale (VAS). Sedation was not used routinely.ResultsThe groups were similar in age, sex, inspection time, and caecal intubation rate (all P>0.05). There were no significant differences in p(ET CO2) values between the 2 groups before and after the procedure (all P>0.05). VAS scores in the CO2 group at various time points after the examination were significantly lower than those in the air group (all P<0.05). The percent of VAS scores of 0 in the CO2 group after 1,3,6, and 24 h was significantly higher than that in the air group (all P<0.01). ConclusionInjection of CO2 for colonoscopy will not cause CO2 retention, and it may significantly reduce the pain, which is safe and effective.

Key words　colonoscopy　carbon dioxide　randomized controlled clinical trial　abdominal pain

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