

ISSN 
CN 3 QK1856329



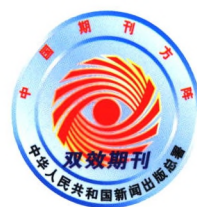
实用癌症杂志

THE PRACTICAL JOURNAL OF CANCER



第 33 卷 第 11 期
Volume 33 Number 11
November 2018

2018



ISSN 1001-5930



万方数据

全国优秀科技期刊
中国科技核心期刊
中国科技论文统计源期刊
全国肿瘤学类中文核心期刊
“中国期刊方阵”入选期刊

实用癌症杂志

SHIYONG AIZHENG ZAZHI (月刊)

2018

第33卷第11期
(总第200期)

主管

江西省卫生和计划生育委员会

主办

江西省肿瘤医院

江西省肿瘤研究所

编辑出版

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印刷

江西嘉欣印务有限公司

发行

国内:江西省报刊发行局

国外:中国国际图书贸易集团有限

公司

(北京399信箱,100044)

代号BM4622

订阅

全国各地邮局(代号:44-37)

邮购

《实用癌症杂志》编辑部

广告经营许可证号

3601004000006

标准刊号

ISSN 1001-5930

CN 36-1101/R

编辑部地址

江西省南昌市北京东路519号

电话:(0791)88329442

E-mail:syazzz@163.net

邮政编码:330029

定价

国内:15.00元

出版日期

2018年11月25日

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《实用癌症杂志》编辑部

The Practical Journal of Cancer

Monthly Established in May 1985 Volume 33, Number 11 November 25, 2018 (Total No. 200)

Responsible Institution

Health and Family Planning
Commission of Jiangxi Province

Sponsor

Jiangxi Cancer Hospital
Jiangxi Cancer Institute

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Printing

Jiangxi Jiabin Printing CO., LTD.

Overseas Distributor

China International Book Trading Cor-
poration (P.O.Box 399, Beijing 100044,
China Code No. BM4622)

Mail-Order

Editorial Department of Practical
Journal of Cancer

CSSN

ISSN 1001-5930

CN 36-1101/R

Address of Editorial

519 Beijing East Road, Nanchang,
Jiangxi, China (Post Code. 330029) Tel:
0791-88329442
E-mail: syazz@163.net

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计学意义($P>0.05$)。然而, Isoflurane 组患者 T_2 、 T_3 时的血清 IL-6、IL-10 水平均高于 TIVA 组。组内比较, 与 T_0 时的血清 IL-6 或 IL-10 水平比较, 2 组患者插管后 2 h 和术后 24 h 的血清 IL-6 和 IL-10 水平均显著升高($P<0.05$)。见表 3。

TIVA 组患者平均住院时间为(10.5 ± 7.5)天, 异氟烷组则为(10.1 ± 2.5)天。异氟烷组 1 例患者术后 15 天死亡。

表 3 2 组患者 IL-6、IL-10 水平比较/(pg · ml⁻¹)

指标	TIVA	Isoflurane
IL-6		
T_0	3.2(1.6~20)	3.1(1.2~17)
T_1	3.2(1.3~23)	3.2(1.2~21)
T_2	102(46~157)*	108(43~155)*
T_3	88(5.7~349)*	101(24~328)*
IL-10		
T_0	4.6(1.8~9.8)	4.3(2~42)
T_1	5.2(2.5~9.4)	7.2(2~41)
T_2	47(11~96)*	45(25~86)*
T_3	14(4.4~38)*	22(9.3~223)*

注: * 为与本组 T_0 比较, $P<0.05$ 。

3 讨论

已有研究表明麻醉药物能影响患者术后促炎和抗炎因子的平衡, 并影响肿瘤细胞行为和肿瘤生长, 进而影响癌症患者术后的长期结局。在临床浓度下, 与其它静脉麻醉药比较, 丙泊酚对 NK 细胞和淋巴细胞活性影响较小; 此外, 丙泊酚还具有抗炎, 抗肿瘤, 抑制环氧合酶(COX-2)活性等作用。挥发性麻醉药异氟烷和七氟烷可抑制肿瘤细胞生长, 其作用呈时间依赖性。

IL-6 和 IL-10 对肿瘤的进展有重要作用。IL-6 可促进肿瘤生长, 影响肿瘤细胞分化, 保护肿瘤细胞免于凋亡; 而 IL-10 抑制促炎细胞因子的合成和提高抗肿瘤免疫功能。本研究中, 2 组患者在 T_0 、 T_1 、 T_2 、 T_3 时血清 IL-6、IL-10 水平差异无统计学意义($P>0.05$); TIVA 组和异氟烷组患者插管后 2 h(T_2) 和术后 24 h(T_3) 的血清 IL-6 和 IL-10 水平均显著高于 T_0 ($P<0.05$)。

这与先前的研究一致^[4-5]。

我们使用自控泵静注吗啡用于患者术后止痛, 虽然已有文献报道吗啡的免疫抑制作用^[6], 基于本研究中 2 组患者麻醉期间, 术中及术后吗啡的使用量相近, 因此本研究中没有考虑吗啡对白细胞介素浓度的潜在影响。此外, 术中输血可能也会影响 IL-6、IL-8、IL-10 水平^[7]。本研究中 2 组患者间的术中失血量没有统计学差异, 从而排除了输血对 IL-6、IL-10 浓度的潜在影响。本研究随访时间为术后 24 h, 由于时间间隔短, 我们没有评估患者肿瘤复发的发生率。本研究的不足之处为随访时间短, 患者长期结局不明确, 这将是我们的下一步的研究方向。

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(收稿日期 2017-08-24 修回日期 2018-02-10)

(编辑: 甘 艳)