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Studies of prophylactic and therapeutic effects of tetrandrine on experimental pleuritis in rats※

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Abstract There was an increase of cytosolic free calcium concentration [Neu-Ca^{2-}]i and calmodulin activity (Neu-CaMA) of the neutrophils in the pleural exudate at 8 h after carrageenin-induced pleuritis in rats. When tetrandrine(Tet) was intragastrically administered in the dosages of 10, 20, 40 and 80 $mg \cdot kg^{-1}$ to rats at 30 min prior to and 4 h after the infliction of pleuritis, the amount, protein content and neutrophil count of the pleural exudate could significantly reduced, [Neu-Ca^{2+}]i was decreased and Neu-CaMA inhibited. In addition, it was found that calcium was able to reverse the inhibition of tetrandrine on Neu-CaMA *in vitro*. On the basis of these findings, it is believed that the excellent anti-inflammatory effect of Tet may be related to its antagonism to calcium-calmondulin system and the inhibition of Tet on Neu-CaMA is dependent upon the decrease of [Neu-Ca^{2+}]i level.

Key words pleurisy/DT; tetrandrine; carrageenan; inflammation; neutrophils; calcium; calmodulin; tetrandrine*

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食管异物致主动脉食道瘘根治术麻醉成功的体会

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食管异物并发主动脉食管瘘罕见,麻醉期间随时面临大出血死亡的危险。我们处理一例获得成功,现予报道。

患者男,34岁。入院时发烧、胸痛、呕血,诊断为食管异物并发主动脉食管瘘。于1992年7月在气管内插管,静脉复合,全身低温及控制性低血压麻醉下行主动脉搭桥及病变主动脉根治和食道瘘口修补术。

麻醉处理:以芬太尼、硫喷妥钠、潘可罗宁进行麻醉诱导,保持病人绝对安静。术中监测包括心电示波、中心静脉压,平均动脉压、呼气末二氧化碳,气道压,血氧饱和度和尿量等。静脉注入冬眠Ⅰ号后进行全身体表降温,整个手术过程中肛温维持32℃～30℃。开胸后游离主动脉时开始静滴硝普钠0.5～1 μg/kg/min,血压控制在9.3～10.7/5.3～6.7 kPa,尿量30～50 ml/h。血管吻合完毕后停用硝普钠,自然复温。手术历时12小时30分钟。

讨论

食管异物约有2%并发主动脉食管瘘[1]。国外报道100余例,非手术治疗全部死亡[2]。手术治疗死亡率亦高,国内报道3例,仅1例存活[3]。情绪激动,血压升高,气管内插管引起呛咳,改变体位可导致主动脉破口处凝血块脱落或假性动脉瘤破裂大出血死亡[4,5]。为避免上述危险因素,术前给予足量的镇静药,麻醉诱导时选用非去极化肌松剂—潘可罗宁和麻醉作用较强的硫喷妥钠,芬太尼氟呱啶,防止了肌肉抽搐和呛咳。

麻醉中低温和降压,有效降低了主动脉压力,防止动脉瘤破裂和手术野出血,有利于手术顺利进行,同时低温。低压也降低机体耗氧量和能量代谢[6]。保护脑、脊髓和心肾等重要器官功能。术后恢复良好,无并发症。

关键词 食管异物;主动脉疾病;食管瘘;麻醉

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