用与其浓度有关,对其在体动态变化及其作用机制还需要深入的实验研究。

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个案与短篇

肝素诱导血小板减少综合征形成 1 例

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[**关键词**] 肝素;肝素诱导血小板减少综合征;下肢深静脉血栓形成

[**中图法分类号**] R558.2 [**文献标志码**] B

1 临床资料

患者,男性,51 岁,因右下肢疼痛、肿胀伴有胸闷、憋气 5 d,以"右下肢深静脉血栓形成,肺栓塞"于 2011 年 3 月 24 日入院。查体体温:36.8 ℃,心率:100/min,脉搏:22/min,血压:150/100 mmHg。双肺呼吸音清,右肺呼吸音弱。右下肢中度肿胀,皮肤张力高,有压痛,左下肢未见异常。双腿周径比(左/右):膝上 15 cm:52/53,膝下 12 cm:34/37。血管超声示:右下肢股浅静脉、腘静脉、胫后静脉血栓形成。肺动脉 CT 血管造影(CTA)示:右肺动脉主干及双侧肺动脉多级分支内充盈缺损。血小板计数 98.00×10^9/L。入院后给予低分子肝素钙 4 100 U,2 次/d 皮下注射。3 月 28 日在局麻下行永久性下腔静脉滤器置入 + 肺动脉置管溶栓术。溶栓导管置于右中肺动脉处,术后给予尿激酶 30 万 U,2 h 泵入,2 次/d;然后给予肝素 4 mg/h 持续泵入,据 APTT 值调整肝素泵入速度。使 APTT 维持在正常值的 1.5 ~ 2.5 倍。2 d 后患者右下肢肿胀减轻,疼痛感消失,呼吸困难、胸闷等症状缓解。肺动脉造影显示右中肺动脉血栓部分溶解。遂调整溶栓导管至右下肺动脉继续溶栓治疗。置管后第 5 天肺动脉造影显示右肺动脉 3 支显影良好,未见明显血栓影,遂拔除溶栓导管,给予皮下注射低分子肝素钙 4 100 U,2 次/d 皮下注射。4 月 4 日患者突发意识障碍,右侧肢体无自主活动,肌张力高,左侧肢体肌力正常。双下肢肿胀,双腿周径比(左/右):膝上 15 cm:47/51,膝下 12 cm:37/40。头颅 CT 及 CTA 示:左侧大脑中动脉血栓形成,左侧大脑半球大面积脑梗死。血管超声检查示:双侧颈动脉、颈内动脉血栓形成,下腔静脉血栓形成。化验血常规血小板最低降至 28.00×10^9/L,给予降颅压、改善循环等治疗。经多方会诊,逐项排除了置管、心脏、血液等系统因素导致血栓形成,认为 2 次血栓来源为肝素诱导的血小板减少可能性大。遂停用低分子肝素,给予阿加曲

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班抗凝治疗。密切观察病情变化。血小板逐渐恢复。至4月11日查血小板193.00×10^9/L,患者意识、肢体功能好转。患者家属要求转回当地医院进行康复治疗,于2012年4月12日转院。

2 讨论

本例患者下肢深静脉血栓形成、肺栓塞诊断明确,滤器置入、肺动脉置管溶栓效果满意。应用肝素抗凝12 d后病情突然恶化,有明确的新发血栓,血栓涉及动脉、静脉多处,血小板计数降至28.00×10^9/L,下降了71%,可以排除其他引起血小板下降的原因,而且停用肝素钠后血小板逐渐恢复,血小板减少与肝素钠的应用存在密切的时间相关性。根据Warkentin's评分系统评价[1-2]为肝素诱导性血小板减少症(heparin-induced thrombocytopenia,HIT)发生的高度可能[3]。HIT是一种少见的自身免疫性疾病,由于免疫系统对肝素-血小板因子4(PF4)复合物的识别,损伤了血小板及内皮细胞,引起血小板凝集、形成血栓素,增强凝血反应,以血小板减少及血栓形成为主要表现[3]。目前临床上主要参考Warkentin's评分系统评价患者发生HIT的可能性[1,3]。HIT分为2型[4]。HIT-Ⅰ型为无症状的一过性的血小板减少,常于肝素治疗5 d内发生,血小板计数轻度减少,且无论停用肝素与否都能迅速恢复正常;HIT-Ⅱ型是肝素治疗所致的一种严重的免疫介导的并发症,常导致严重的血栓性疾病,临床意义较大,本例患者所发生的HIT属于此类型。肝素在临床上应用越来越广泛。从围手术期预防深静脉血栓形成到血管手术的肝素化,从动静脉置管护理到心脑血管疾病的抗凝治疗,肝素的应用涉及临床的每个科室。其在解决临床问题的同时也带来了许多不良反应,HIT是较为少见但比较凶险的并发症,而且没有被临床医务人员所认识。国内有关HIT文献报道很少,且多局限于综述。临床医师和护士要不断探索和积累经验,争取做到早发现、早处理各种不良反应,让肝素最大限度为临床服务,并将其危害规避到最低程度。

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