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• 病例报告 •

锁骨内侧骨折合并同侧肩锁关节脱位漏诊 1 例

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Missed diagnosis of medial clavicle fracture with ipsilateral acromioclavicular joint dislocation: a case report LI

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KEYWORDS Clavicle; Fractures; Acromioclavicular joint; Dislocations; Missed diagnosis

患者,男,50岁,2h前从高约5m屋顶坠落,右侧肩部着地,起立后无法上举、外展右侧上肢,感右肩部、胸部及足部疼痛,就诊我院急诊科,行胸腰部

CT检查(仅扫描到一部分锁骨,且患者非严格仰卧位,身体左侧倾斜)示右侧锁骨内侧端骨折,第3-5肋骨骨折(图1a)。仰卧位右肩部X线示右锁骨内侧端骨折(图1b)。由于患者足部受伤,未予行双侧肩关节站立位或负重位X线片。患者为体力劳动者,强烈要求手术治疗。入院后第3天,完善血常规、

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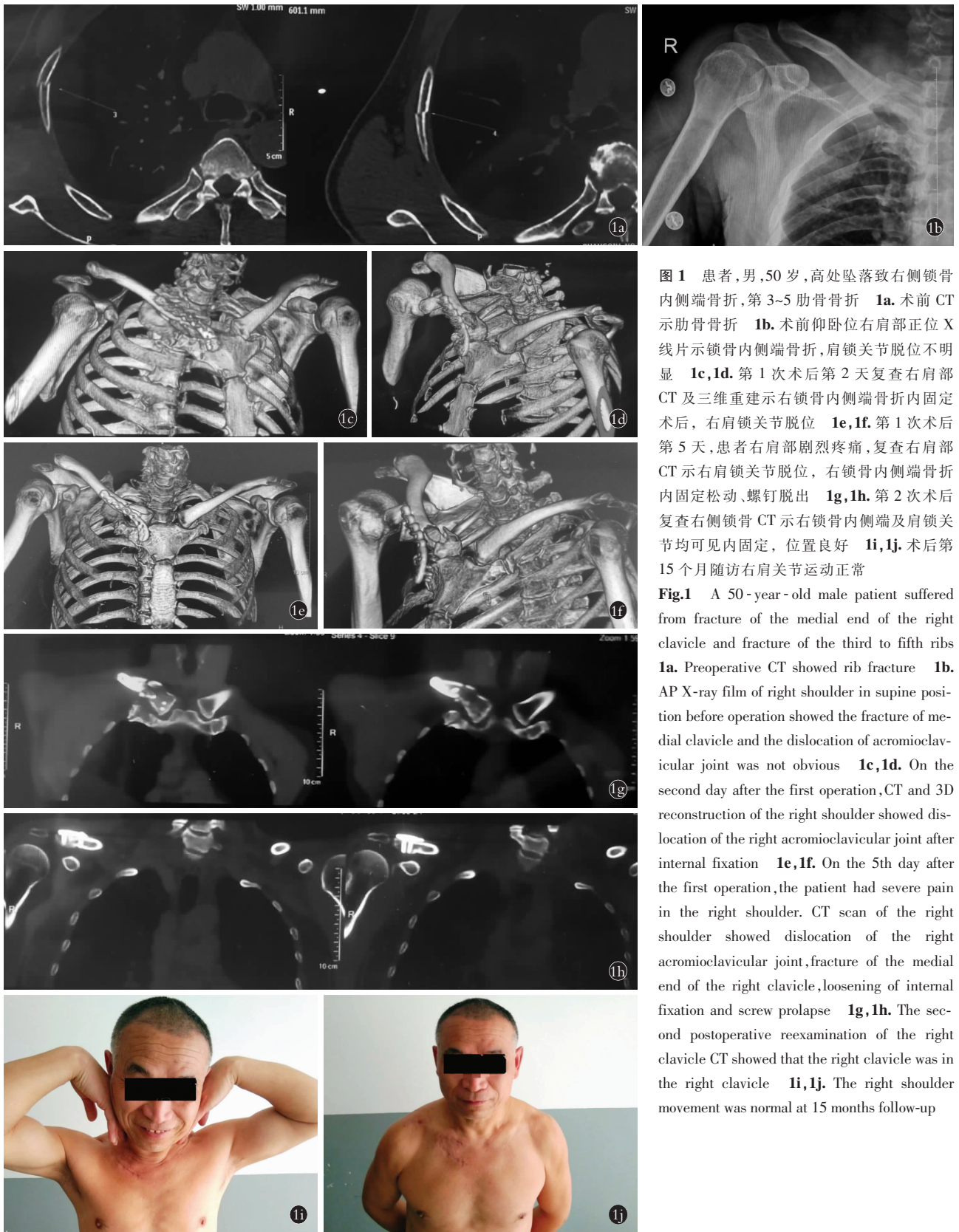


图 1 患者,男,50 岁,高处坠落致右侧锁骨内侧端骨折,第 3~5 肋骨骨折 1a. 术前 CT 示肋骨骨折 1b. 术前仰卧位右肩部正位 X 线片示锁骨内侧端骨折,肩锁关节脱位不明显 1c,1d. 第 1 次术后第 2 天复查右肩部 CT 及三维重建示右锁骨内侧端骨折内固定术后,右肩锁关节脱位 1e,1f. 第 1 次术后第 5 天,患者右肩部剧烈疼痛,复查右肩部 CT 示右肩锁关节脱位,右锁骨内侧端骨折内固定松动、螺钉脱出 1g,1h. 第 2 次术后复查右侧锁骨 CT 示右锁骨内侧端及肩锁关节均可见内固定,位置良好 1i,1j. 术后第 15 个月随访右肩关节运动正常

Fig.1 A 50-year-old male patient suffered from fracture of the medial end of the right clavicle and fracture of the third to fifth ribs 1a. Preoperative CT showed rib fracture 1b. AP X-ray film of right shoulder in supine position before operation showed the fracture of medial clavicle and the dislocation of acromioclavicular joint was not obvious 1c,1d. On the second day after the first operation, CT and 3D reconstruction of the right shoulder showed dislocation of the right acromioclavicular joint after internal fixation 1e,1f. On the 5th day after the first operation, the patient had severe pain in the right shoulder. CT scan of the right shoulder showed dislocation of the right acromioclavicular joint, fracture of the medial end of the right clavicle, loosening of internal fixation and screw prolapse 1g,1h. The second postoperative reexamination of the right clavicle CT showed that the right clavicle was in the right clavicle 1i,1j. The right shoulder movement was normal at 15 months follow-up

心电图等其他检查后,在臂丛麻醉下行右锁骨内侧端切开复位内固定术,术中使用 1 块塑形后的 6 孔锁骨远端解剖钢板,倒置后跨胸锁关节固定,术中行

C 形臂 X 线透视发现锁骨内侧端骨折已复位,但肩锁关节处似有脱位,未予行手术固定,术后予前臂吊带固定。反复观看术前右肩部 CT 及术中 C 形臂 X

线透视片,初步诊断包含右侧肩锁关节脱位,遂术后第 2 天,予复查右肩部 CT(图 1c,1d):右锁骨内侧端内固定术后改变,钢板及螺钉位置良好无松动及脱位;右肩锁关节脱位。继续予患者前臂吊带固定,暂不予前屈、后伸、外展肩关节等动作。术后第 5 天,患者突然感觉右锁骨内侧端剧烈疼痛,发现右侧胸锁关节及肩锁关节处皮肤凸出,急复查右肩部 CT(图 1e,1f):右锁骨内侧端内固定松动、螺钉脱出;右肩锁关节脱位。术后第 7 天,在臂丛麻醉下取出原内固定物之后,先复位肩锁关节,植入 1 块 3 孔锁骨钩钢板,再于锁骨内侧端处植入 1 块 6 孔桡骨远端钢板(未跨关节固定)。术后第 2 天(图 1g,1h),第 1、3、6 及 12 个月复查 X 线或 CT,并评估右肩关节功能,术后第 12 个月去除所有内固定,共随访至术后第 15 个月,右肩部主动及被动运动均正常(图 1i,1j)。

讨论

锁骨骨折是成人非常常见的一种骨折类型,占成人全身骨折的 2.6%~4%,而锁骨内侧骨折仅占这些锁骨骨折的 2%~3%,发病率极低,锁骨双极骨折、脱位发病率更低,往往伴有臂丛损伤、肱骨骨折、肋骨骨折等合并症,锁骨双极损伤的发病率仅占所有锁骨骨折的 0.8%^[1]。Eni-Olotu 等^[2]将胸锁关节脱位合并同侧肩锁关节后脱位称为“浮动锁骨”,但“浮动锁骨”不仅只包含上述症状,笔者认为凡涉及锁骨两端同时骨折或脱位的损伤,均可称为“浮动锁骨”。

而对于浮动锁骨,尤其是年轻医师接诊的情况下,误诊率很高^[3]。就如此例患者,术前仅将注意力放在了锁骨内侧端骨折上,忽略了锁骨外侧端的骨质及韧带情况,尽管在术中透视发现右肩锁关节间隙增大,可疑肩锁关节脱位(Ⅱ型),但由于意识局限于 Rockwood 分型^[4],并未引起重视,直至该患者出现了锁骨内侧端的内固定失效。尽管浮动锁骨的发病率低,但是一旦发生漏诊,对患者将造成极大的心理伤害,因此,如何提高诊断的准确率非常关键,要严格查体并结合特殊体征的 X 线即可作出肯定的诊断,Choo 等^[3]则依赖于高分辨率的影像结果,最终得到了准确的诊断。即使如此,通过查阅相关文献,并不能放松警惕,尤其对于高空坠落、交通事故等具有直接暴力机制的锁骨骨折,同样,对于具有臂丛神经损伤、肋骨骨折、肱骨骨折等合并症的患者,同样要排除锁骨的双极损伤。当然,也有低能量损伤导致此类损伤的报道^[5]。

保守治疗的方式包含搭肩石膏、“8”字绷带、前臂吊带固定。手术治疗的方式包含克氏针、螺钉、钩钢板、重建钢板、张力带、韧带重建、桡骨远端钢板、“T”形钢板等。一般选择保守治疗的患者存在以下特

征:患者自身条件较差,不能耐受手术;低能量损伤^[6];患者强烈要求保守治疗。Gouse 等^[7]提出,老年患者,尤其是久坐的患者更倾向于保守治疗,而年轻患者或者具有频繁活动者,则更倾向手术治疗。

本例患者为重体力劳动者,对于肩关节功能要求较高,因此选择手术治疗。对于锁骨内侧端关节外的骨折固定方式,选择较多,国内常用的有克氏针、锁骨近端钩钢板、“T”形钢板^[8]、桡骨远端钢板,本例患者第 1 次手术时选择了锁骨远端钢板,跨胸锁关节固定于锁骨前侧,术后第 5 天出现了内固定的失效,分析原因如下:胸锁关节属于微动关节,此时虽然有肩锁关节脱位,致使形成“浮动锁骨”,但是肩锁关节仅为Ⅱ型损伤,喙锁韧带、喙肩韧带保存完整,活动肩关节时,可引起胸锁关节的活动,跨关节固定的锁骨远端钢板必然会导致失效。第 2 次手术采取了锁骨内侧端桡骨远端钢板固定,肩锁关节脱位使用锁骨钩钢板固定,通过 15 个月的随访,患者目前右肩关节主动及被动活动均在正常范围。

锁骨内侧端骨折合并同侧肩锁关节脱位属于“浮动锁骨”中的一种类型,结合患者特殊体征、严格的体格检查,并结合 X 线、CT 等影像学资料,可以提高浮动锁骨的诊断准确率。尽管有部分患者通过保守治疗获得了较满意的预后,但是总体来说,保守治疗的再手术率和肩关节功能受限的发生率较高,笔者建议除了不能耐受手术者外,仍首选手术内固定治疗,对于内固定方式目前尚无最佳方式。

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