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- (收稿日期: 2019-05-31 本文编辑: 王玉蔓)

## · 病例报告 ·

## 肩锁关节脱位术后喙锁间隙异位骨化 1 例


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关键词 肩锁关节; 肩脱位; 喙锁韧带; 骨化, 异位性; 病例报告

中图分类号: R686.5

DOI: 10.3969/j.issn.1003-0034.2020.01.014

开放科学(资源服务)标识码(OSID): 

**Heterotopic ossification of coracoclavicular space after acromioclavicular joint dislocation: a case report** YE Chun-xiao, GUO Ying-bin, ZHENG You-hui, and WU Zhen-bin. Department of Upper Extremity, Quanzhou Orthopaedic Hospital, Quanzhou 362000, Fujian, China

**KEYWORDS** Acromioclavicular joint; Shoulder dislocation; Coracoclavicular ligaments; Ossification, heterotopic; Case report

患者,男,46岁,因车祸致右肩部肿痛、活动受限3h,于2013年10月24日入院。患者入院前3h车祸致右肩受伤,伴短暂昏迷,伤后出现肩部肿胀、疼痛、活动受限,并左前臂及左足疼痛、流血。我院X线检查提示右肩锁关节脱位(Rockwood V型)、左

足骰骨骨折。患者无特殊既往病史。查体:右肩部肿胀,锁骨肩峰端隆起,可及压痛,琴键征阳性,Dugas阴性,右上肢感觉、血运正常。患者2013年10月29日在全身麻醉下行“右肩锁关节脱位切开复位双Endobutton钢板固定术”。仰卧位,取肩锁关节内侧2.5cm处平行于Langer线切口,起自锁骨后缘,长约7cm;显露肩锁关节、喙突、喙肩韧带,清除软骨碎片及破裂的关节盘;于锥状韧带止点处,用直径4.5mm

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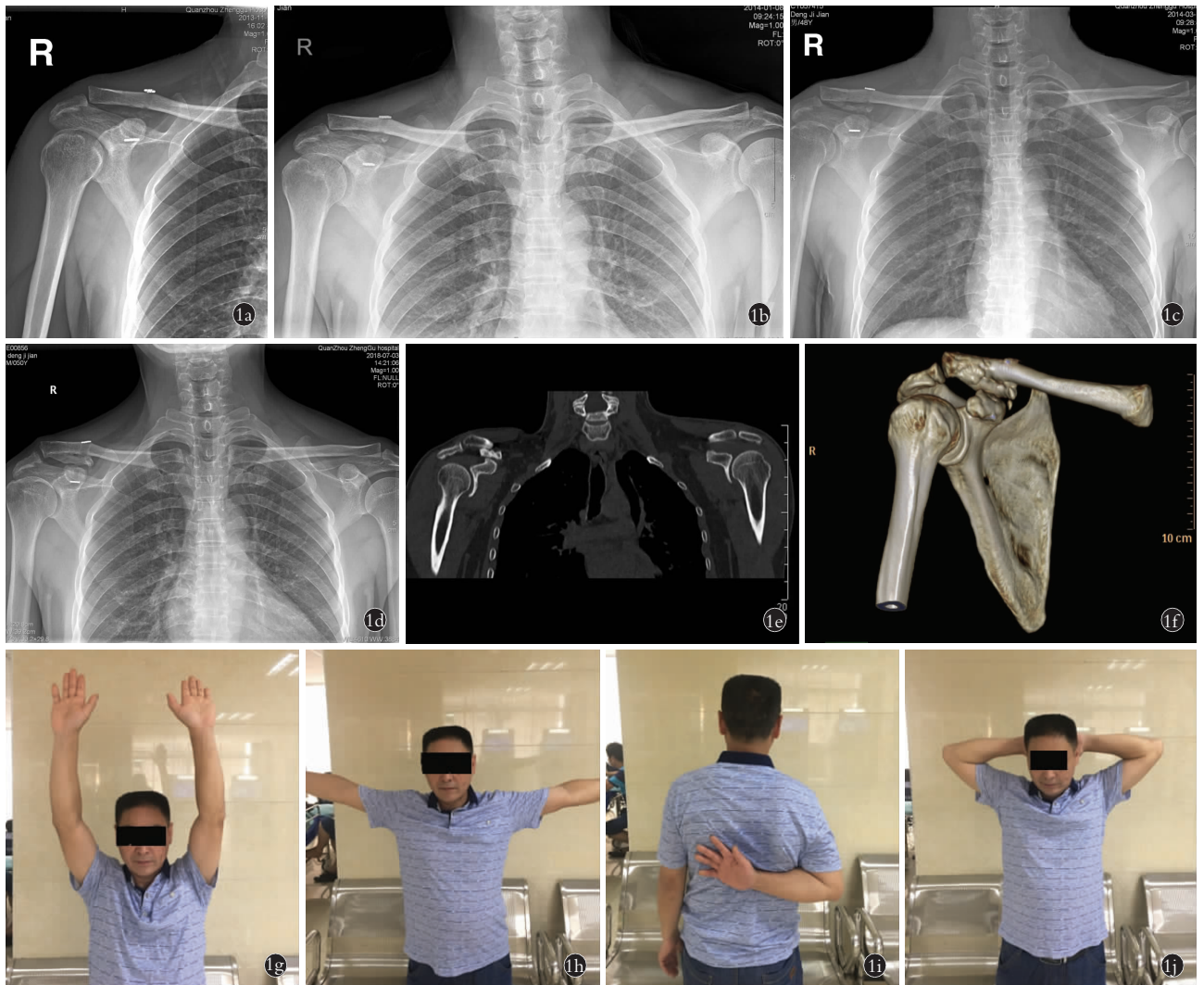
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钻头钻孔,于斜方韧带止点处,用直径 2.5 mm 钻头钻孔,再用直径 2.0 mm 克氏针于喙突基底中央钻孔,选择 Endobutton 带袢钢板(Smith&Nephew),用 3 根 2 号不可吸收爱惜邦线穿过钢板,沿喙突孔道将之置于喙突基底,自锁骨表面的 4.5 mm 孔引出袢环,将另 1 枚不带袢 Endobutton 钢板置于其内,将其中 1 根爱惜邦线穿过锁骨上 Endobutton 钢板并收紧打结,完成锥状韧带重建;将另外 2 根爱惜邦线自 2.5 mm 孔引出打结,完成斜方韧带重建;修复三角肌及斜方肌筋膜,生理盐水冲洗,缝合切口。术后常规应用抗生素 24 h,术后 2 周伤口愈合拆线,指导患

者行肩关节功能锻炼。术后 3 周查体:右肩部外观正常,肩关节活动良好,右上肢感觉、血运良好,X 线片示右侧喙锁间隙内见高密度影。术后 2、4、59 个月随访复查,右肩关节活动均正常,影像表现为喙锁间隙高密度影逐渐变大、密度增高,并与锁骨肩峰端下缘连接。患者无任何不适,且肩关节活动良好,对异位骨化病灶未行任何处理。

**讨论**

异位骨化通常发生在关节置换术、髌臼骨折、肘关节骨折、脊髓损伤、爆炸伤、脑外伤及烧伤后<sup>[1]</sup>,尤以髌臼骨折和肘关节骨折最为多见<sup>[2]</sup>。对于肩锁关



**图 1** 患者,男,46 岁,右肩锁关节脱位术后喙锁间隙异位骨化 **1a**. 术后 3 周正位 X 线片示喙锁间隙高密度影 **1b**. 术后 2 个月正位 X 线片示喙锁间隙高密度影变大 **1c**. 术后 4 个月正位 X 线片示喙锁间隙高密度影密度略增高 **1d,1e,1f**. 术后 59 个月正位 X 线片示喙锁间隙高密度影大小约 1 cm×5 cm,CT 值 185 Hu,诊断为异位骨化 **1g,1h,1i,1j**. 术后 59 个月随访,患者做肩关节前屈上举、外展上举、旋前、旋后动作

**Fig.1** A 46-year-old patient with heterotopic ossification of coracoclavicular space after right acromioclavicular joint dislocation **1a**. AP X-ray at 3 weeks after operation showed high density mass in the coracoclavicular ligament **1b**. AP X-ray at 2 months after the operation showed that the coracoclavicular space became larger with high density **1c**. AP X-ray at 4 months after operation showed the high-density shadow density of coracoclavicular space was slightly increased **1d,1e,1f**. AP X-rays at 59 months after operation showed the high-density shadow of coracoclavicular space was about 1 cm×5 cm in size,CT value was 185 Hu,and it was diagnosed as heterotopic ossification **1g,1h,1i,1j**. After 59 months of follow-up,the patients performed shoulder forward flexion and upward lifting,abduction and upward lifting,pronation and supination

节脱位术后喙锁韧带发生异位骨化报道并不多见。

肩锁关节脱位后发生异位骨化报道亦少见。Abdullah 等<sup>[3]</sup>报道 1 例 Rockwood II 型肩锁关节损伤发生严重异位骨化,骨化发生在肩锁关节周围,患者肩部疼痛并且肩关节活动受限,经过放疗、手术后治愈。王万宗等<sup>[4]</sup>报道 1 例肩部外伤致肩锁关节脱位,行锁骨钩钢板手术,术后 7 个月发现喙锁韧带骨化,患者无特殊不适,异位骨化未做处理,因钢板钩端有切割肩峰表现,给予取出。

异位骨化确切的发生机制和病理生理学原因还不完全清楚。异位骨化的形成取决于 3 个方面:(1)成骨诱导因子。(2)成骨前体细胞。(3)适宜的生长环境<sup>[5]</sup>。脑创伤性异位骨化的发生机制仍不十分清楚,目前认为,其基本原因是刺激因素导致具有分化潜能的间充质细胞转化为成骨细胞<sup>[6]</sup>。本例患者为车祸外伤,伴短暂昏迷,提示异位骨化发生可能与脑外伤有关。

Ogilvie-Harris 等<sup>[7]</sup>报道 4 例 ACL 重建术后发生异位骨化的患者,异位骨化均出现在股骨隧道外口处,认为与术中骨屑存留有关。张晋等<sup>[8]</sup>报道 3 例膝关节多发韧带损伤重建术后发生异位骨化,术后即刻摄 X 线片示胫骨隧道出口处附近骨屑影,考虑后方象限出现骨化可能与钻取胫骨隧道后少量骨屑残留有关。本例患者行 Endobutton 手术,术中于锁骨的喙锁韧带止点处以及喙突基部钻孔,残留骨屑可能与喙锁间隙发生异位骨化有一定关系。

异位骨化手术切除的适应证包括:(1)神经血管受压。(2)关节活动范围受限。(3)严重疼痛<sup>[9]</sup>。本例患者无任何不适,且肩关节活动良好,对异位骨化病灶未行任何处理。

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(收稿日期: 2019-02-20 本文编辑: 王玉蔓)