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· 临床研究 ·

面颊部透明质酸注射充填术后并发颊部肿物的临床报告

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【摘要】 目的 探讨透明质酸充填注射后致面颊部肿物的临床特点、鉴别诊断及防治措施。方法 收集2014年3月~2018年12月山西医科大学第一医院收治的5例因充填美容后引起面颊部肿物的患者,对其临床表现、影像学表现、外科手术及病理特点进行总结。结果 5例患者均为年轻女性,均有面部透明质酸充填注射史,其临床特点为面颊部结节性肿物,肿物均行外科手术治疗,病理报告为纤维脂肪组织伴脂肪坏死,间质内可见炎症细胞浸润。术后面型基本对称,无感染、张口受限及面瘫等症状,无需二次充填治疗。结论 面部透明质酸充填注射可能引发面颊部结节性肿物并发症,口内手术切除是其有效治疗措施,预后良好。

【关键词】 透明质酸; 充填注射; 并发症; 面颊部肿物; 纤维脂肪组织; 脂肪坏死; 慢性炎症

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【Abstract】 Objective To investigate the clinical characteristics, differential diagnosis and treatment of cheek mass caused by hyaluronic acid injection. **Methods** From March 2014 to December 2018, data from 5 patients with cheek masses caused by cosmetic fillings admitted to the First Hospital of Shanxi Medical University were collected, and their clinical, imaging, surgical and pathological features were summarized. **Results** All 5 patients were young females with a history of facial hyaluronic acid filling injection. Their clinical features were buccal and facial nodular masses, all of which were treated with surgery. The pathological report was fibrous adipose tissue with fat necrosis, and chronic inflammatory cell infiltration was observed in the interstitium. After the operation, the face shape was basically symmetrical, and there were no symptoms such as infection, limited mouth opening or facial paralysis. **Conclusion** The injection of facial hyaluronic acid may cause complications of nodular masses in the cheek, and intraoral resection is an effective treatment with good prognosis.

【Key words】 hyaluronic acid; filling injection; complications; cheek mass; fibrous adipose tissue; fat necrosis; chronic inflammatory

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随着医疗美容技术和生物材料科学的发展,透明质酸已成为市场上较为常用和理想的皮肤填充材料之一。透明质酸又称玻尿酸,广泛分布于人和动物体内,其分子是由 β -D-葡萄糖醛酸和 β -D-N-乙酰氨基葡萄糖的双糖单位聚合而成的高分子多糖物质,具有良好的组织相容性和可降解性^[1-2]。2003年美国食品药品监督管理局(Food and Drug Administration, FDA)正式批准透明质酸作为美容除皱产品进入市场,用于矫正皱纹和凹陷、美化面部器官及调整面部轮廓。虽然已有的报道认为其在注射美容应用是安全和有效的,但对其并发症不可忽视。自1996年瑞士Q-Med AB公司生产美容注射用透明质酸以来,其临床使用仅有几十年历史^[3]。现总结2014年3月至2018年12月山西医科大学第一医院口腔科收治的5例因透明质

酸充填注射而引发的面颊部肿物患者,现对其临床特点及防治措施进行总结。

1 资料和方法

1.1 一般资料

5例患者临床资料如表1所示。本组患者均为女性,年龄25~36岁,平均年龄31岁。所有患者均在1~4年前进行过面部透明质酸美容产品注射,肿物发生部位均为面颊部,单侧或双侧发病。就诊原因均为发现单侧或双侧面颊部肿块形成,伴或不伴有疼痛。入院后系统检查无异常,查体可见肿物较大者致面颊部隆起,颊部组织内可触及大小不等的结节状肿块,质地较软或中等,界限不清,硬度一般,与颊部周围组织有明显黏连,无麻木感,可有或无触痛,张口无受限,双侧颊部黏膜及表面皮肤未见异常。

表1 5例患者的临床资料
Table 1 Clinical data of 5 patients

Number	Age(year)	Sex	HA injection history		Mass site	Symptom	Clinical sign
			Injection time	Drug brand			
1	36	Female	4 years ago	Unknown	Right cheek	Right cheek mass with pain	Mass is medium texture; sticky and haphalgnesia
2	28	Female	3 years ago	Unknown	Left cheek	Left cheek mass; no obvious discomfort	Mass is soft texture; no adhesion and haphalgnesia
3	30	Female	1 year ago	Unknown	Bilateral cheek	Bilateral cheek mass; no obvious discomfort	Mass is soft texture; no adhesion and haphalgnesia
4	25	Female	3 years ago	Unknown	Left cheek	Left cheek mass; no obvious discomfort	Mass is medium texture; no adhesion and haphalgnesia
5	34	Female	1 year ago	Unkown	Bilateral cheek	Bilateral cheek mass; no obvious discomfort	Mass is soft texture; no adhesion and haphalgnesia

HA: hyaluronic acid

1.2 辅助检查

患者均行血常规、尿常规、生化、心电图及胸片等常规检查,结果均未见异常。5例患者术前均进行颌面部CT和MRI检查。CT平扫对肿物显示不明显,MRIT₁、T₂WI呈高信号、T₂脂肪抑制呈低信号,T₂加权成像可较好地显示肿物位置及界限,提示病变位于上颌骨后外侧、咬肌前缘、颊肌后缘大小不等的不规则占位,边界欠清晰,考虑脂肪瘤可能(图1a~1b)。

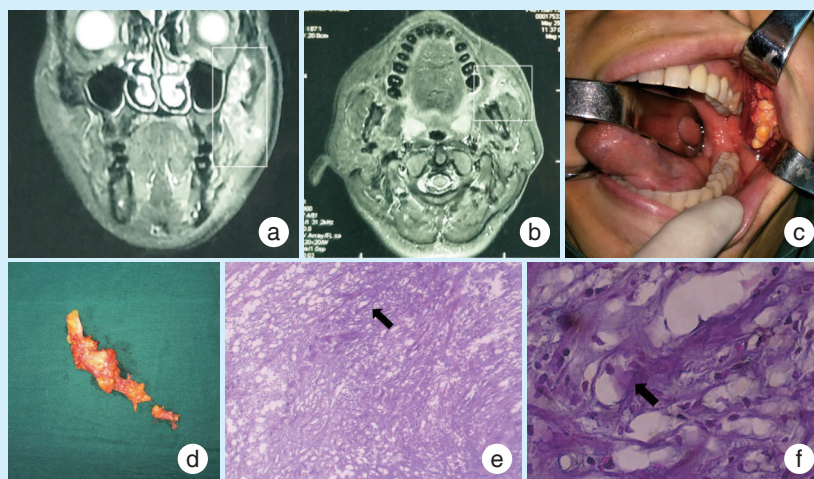
1.3 手术过程

排除手术及全麻禁忌症后,所有患者均于全麻下行“面颊部肿物切除术”,5例病例中肿物均位于颊软组织深部,靠近颊黏膜,口内经患侧颊脂垫下缘或偏前部,平行下颌牙平面做横行切口(横行切口可获得更大的手术视野,减少组织损伤),避免损伤腮腺导管乳头,切开颊肌向后钝性分离即

可显露肿物,术中见肿物均呈淡黄色、实性结节状、质地较韧、无明显包膜、部分肿物与颊脂垫黏连融合、与咬肌及颊肌纤维黏连不明显(图1c~1d),5例病例中肿物大小分别为:2.0 cm × 1.0 cm × 1.0 cm; 3.0 cm × 1.0 cm × 1.0 cm; 1.5 cm × 1.0 cm × 1.0 cm; 2.0 cm × 1.0 cm × 1.5 cm和3.0 cm × 1.5 cm × 1.5 cm。切取部分肿物组织送冰冻检查,排除恶性占位后沿肿物周围钝性分离将其完整摘除,冲洗止血,术腔内置橡皮引流条,缝合切口。

2 术后及随访结果

本组患者术后病理提示:纤维脂肪组织伴脂肪坏死,间质内可见慢性炎细胞浸润。镜下可见肿物外有较厚一层纤维包膜,局部较厚并向下折叠,部分构成裂隙状小囊;黄色脂肪细胞大小不等,细胞间可见小叶分隔,肿物周边可见较多毛细



a: MRI in the coronal position; b: cross-sectional MRI, white square shows a space-occupying lesion in the left buccal region, and the mass has unclear boundaries of surrounding tissue; c: intraoperative masses were observed to be adherent to the buccal fat pad, with clear boundaries to the muscles and submucosal surrounding tissues; d: the mass was approximately 3.5 cm long, yellow in color and medium in texture with shape irregularities; e: pathological section of the mass (HE × 40), black arrow shows a large number of fat cells with a small amount of inflammatory cells; f: pathological section of the mass (HE × 400), black arrow shows adipocyte intercellular hybrid foam cells

Figure 1 MRI, intraoperative tumor status and pathological biopsy of cheek mass

图1 面颊部肿物患者的MRI、术中肿物情况与肿物病理切片图

血管,肿物中心有较多纤维组织并有部分灶性钙化(图1e~1f)。5例患者均经口内颊黏膜入路完成手术,术后均未出现感染、张口受限、颊部麻木及面瘫等并发症。4例患者随访5个月至2年,肿物均未复发,1例患者待随访。

3 讨论

3.1 透明质酸注射充填相关并发症

2010年美国美容整形外科协会统计全美透明质酸年注射充填治疗例次达131万多例,报道的并发症有局部红肿、瘀青、过敏、感染等早期并发症和充填物移位、过度矫正、皮下硬结或肉芽肿性结节等晚期并发症^[4]。有研究报道了6例透明质酸注射液后血管损害的病例,其临床症状表现为Nicolau综合征,特点是注射后立即出现疼痛,出现青斑样的改变,几天后出现结痂和皮肤坏死^[5]。Lee等^[6]报道了1例透明质酸注射后出现口角肿物的患者,术后病理发现肿物由上皮样细胞和多核巨细胞构成,类似于肉芽肿。透明质酸注射引起最严重的血管损害是视网膜中央动脉栓塞,导致失明^[7-8]。也有报道显示透明质酸类美容产品注射可引发偏瘫及阻塞肺动脉形成非血栓性肺栓塞等罕见严重并发症^[9-10]。

3.2 病例特点

本探究患者临床特点如下:①均为女性,平均年龄31岁;②均在1~4年前于非正规美容医疗机构面部注射透明质酸美容产品,否认自体脂肪或其他胶原蛋白类产品注射,因此有理由认为患者因注射了含有透明质酸成分的美容产品而引起面颊部的肿物;③患者入院时往往隐瞒美容注射史,给临床诊治带来困难,因此需详细追问此类病人病史;④患者肿物发生部位均为单侧或双侧面颊部,咬肌前缘、颊肌后缘处,肿物缓慢形成,伴或不伴有疼痛;⑤患者的影像学及病理表现与脂肪瘤相似,可与透明质酸充填注射后引起的肉芽肿和皮下硬结相区别;⑥术中表现为界限不清的黄色结节状肿块,因部分肿物与颊脂垫黏连融合,术中需将肿物与颊脂垫一并摘除。

3.3 鉴别诊断

透明质酸注射后引起的面颊部肿物虽属良性,但其界限不清,需与口腔小唾液腺或间叶组织来源的肿瘤鉴别。①黏液表皮样癌:好发于腮腺,小唾液腺常见于腭部,临床表现与肿瘤细胞分化程度有关,高分化粘液表皮样癌为生长缓慢的无痛性肿块,很少出现神经症状,低分化黏液表皮样癌生长迅速,常出现疼痛和面瘫。②腺样囊性癌:

根据肿瘤细胞类型和排列方式分为筛状型、冠状型和实性型,除实性型外一般生长缓慢。肿瘤常伴有神经症状和疼痛,浸润性强,常越过皮质骨侵犯骨髓腔,也易侵入血管,造成血行性转移,转移部位以肺部常见。③脂肪瘤:是一种常见的软组织良性肿瘤,可发生于身体任何有脂肪的部位,好发于肩、背、颈、乳房和腹部,其次为四肢近端。肿瘤质地较软,界限较清,发生在皮下者多见,称为浅表脂肪瘤,也可见于肢体深部和肌腹之间,称为深部脂肪瘤,深部脂肪瘤多沿肌肉生长。

3.4 预防及治疗

透明质酸注射引起的肿物一般出现在注射时,肿物较局限并可自行消退,仅极少个体在注射后形成面颊部肿物,该并发症较为罕见^[11],病因尚无明确报道。对于此类并发症的预防,从充填剂中分离出不可降解的成分是非常重要的^[12]。透明质酸注射后的早期肿物多由生物合成的胶原蛋白和透明质酸引起,这些肿物通常留在注射部位;晚期的肿物可能是由聚乳酸、羟基磷灰石钙、藻酸盐、凡士林、石蜡、硅油、羟乙基甲基丙烯酸酯碎片、聚甲基丙烯酸甲酯珠、聚丙烯酰胺或聚烷基酰胺凝胶造成^[13]。此外,肿物的发生概率与填充物颗粒的表面积与体积有关,填充物的颗粒边缘不规则也可诱发充填后肿物的发生,均质的透明质酸填充物很少诱发肿物。其次,注射时需尽量确保透明质酸酶注射到需积存的层次,必要时可用超声引导。也有报道认为透明质酸注射后形成的肿物可能与细菌有关,当操作不当时,细菌生物膜黏附在填充物表面,这些细菌在生物膜中不受宿主免疫系统的监控,因此处于稳定状态。一段时间后,它们可能被另一种填充物注射、外科手术、感染、创伤或未知原因激活而以炎性肿物的形式出现^[14]。对于已形成肿物的患者,有文献报道注射透明质酸酶是有效的,但治疗结果是不可预测的,有时是短暂的缓解症状^[15]。本组5例患者术后肿物无复发,无其他并发症,因此对此类并发症不建议保守治疗,应行手术切除。

综上所述,透明质酸充填注射致面颊部结节状肿物较为罕见,手术是其有效治疗措施,本组病例均行口内颊黏膜入路切除。该并发症发生机制尚不明确,仍需要更多的病例报道积累以及实验室研究结果的证明。

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