

Extra capsular dissection role and advantages in surgical treatment of parotid pleomorphic adenoma

Thaer Hameed Mohsin, BDS, HDD, FICMS, Collage of Dentistry/University of Wasit

دور ومزايا العلاج الجراحي لورم متعدد الاشكال في الغدة اللعابية النكفية بواسطة فصلة مع الانسجة المحيطة بالغلاف الخارجي للورم

ثائر حميد محسن

كلية طب الاسنان / جامعة واسط

المستخلص

الغرض من هذه الدراسة لفحص ومعرفة دور وفوائد وفعالية رفع ورم متعدد الاشكال في الغدة النكفية عن طريق فصل الورم مع غلافة الخارجي مع الانسجة المحيطة به وبدون الحاجة للرفع الكامل الجزء السطحي للغدة النكفية، مع فصل العصب السابع عن الورم

عملية رفع ورم متعدد الاشكال في الغدة النكفية من 12 مريض معدل اعمارهم 35 سنة بطريقة فصل الورم مع جداره الخارجي مع الانسجة الرخوة المحيطة بفتح مكان لرفع الورم من خلال شق خارجي امام الاذن تحت التخدير العام

من الممكن اعتبار عملية رفع الورم بهذه الطريقة هي العملية المختارة لان العصب الوجهي السابع لم يتأثر ولم يضعف، ثانيا لم تظهر أي حالة رجوع الورم مرة ثانية من خلال متابعة المرضى لمدة تتراوح خمسة سنوات

ان رفع الورم بهذه الطريقة لم يؤدي الى اعادة الاصابة بهذا الورم، وهناك انفتاح الغلاف الخارجي للورم لوحدة من الحالات مع ناسور الغدة النكفية لنفس الحالة م علاجهما، وعند فحص المرضى مباشرة بعد العملية تبين بان العصب الوجهي السابع لم يتأثر ولم يضعف

الكلمات المفتاحية : رفع الورم مع الغلاف الخارجي للغدة النكفية، رفع الجزء السطحي للغدة النكفية، العصب الوجهي السابع، الغدة النكفية، ورم متعدد الاشكال

Abstract

This article determine and examine the roles, advantage and efficacy of extra capsular dissection (ECD) for surgical management of the pleomorphic adenomas in the parotid gland ,the study done on 12 patient with average age 35 ,its different from " classical " surgical technique to the parotid tumor (superficial parotidectomy) because facial nerve dissection is not done.

A total of 12 patients with the mean follow up to 60 +\ - 4 months ,7 male and 5 female average age was 35 years. The type of surgery performed was Extra capsular dissection (ECD) through extra oral approach by pre auricular incision under general anesthesia.

ECD may be considered the treatment of choice because No significant transient nerve injury and or facial palsy, No recurrence.

local recurrence were not observed for all group of our patients, capsular rupture occur in one case ,salivary fistula was measured in the same case and the most important is immediately post operative examination no facial nerve palsy and or weakness .

Keywords: Extra capsular dissection, superficial parotidectomy , facial nerve, parotid gland, pleomorphic adenoma

Introduction

Salivary gland tumors represented not more than 5% of tumors in the neck and head area .Pleomorphic adenoma represents 54 to 70% of salivary gland tumors and 70 % of these happen in the parotid gland(1). Due to the close relation of the tumor to the facial nerve, the parotid gland is divided into deep and superficial lobe by the facial nerve ,which run through its structure (2).about 80 % of the parotid tumors occur in this superficial lobe. Most of the parotid tumors look like lumps appear within the superficial lobe of the gland(3)." The surgical treatment of a pleomorphic adenoma was in controversy for years, due to the dangerous of facial nerve injury, rupture of the capsule, and recurrence (4).The total or superficial parotidectomy include the resection of a suitable amount of normal parotid tissue with dissection of the facial nerve lead to facial nerve trauma and the loss of parotid function (5). " Extra capsular dissection (ECD) different completely from normal surgical approaches to the parotid tumor because facial nerve dissection is not done, many reasons made this approach favor include tumor mobility within the gland, a thin capsular cover the glandular tissue of the gland , and the tumors is large enough to permit manual manipulation of the tumor during dissection.(6)," traditional method learning is removal of the pleomorphic adenoma by superficial parotidectomy ,

with including facial nerve determination and en block removal of the superficial portion of the gland (7)." ECD is this type of approach which is alternative to the "classical methods" to remove the lump of this tumour , including perfect dissection outside the tumor capsule while remain protecting the facial nerve, and is differed from enucleating. (8) "

Material and method

Extra capsular dissection is done by neatly dissection around the tumor capsule without pre facial nerve pre identification. The use of this method(ECD) has lead to decreased surgical complications following the surgical removal of benign tumors for a assured number of patients.

12 Patients with a parotid glands pleomorphic adenoma treated from 2008 and follow up to January 2015. The diagnosis of the pleomorphic adenoma was done by symptoms and sign with " ultrasonography, CT , MRI, for the neck and head with FNAC to our sample," the patients have a tumor position in the superficial portion of the parotid gland the lesion size mean was 2-4 cm. The choice of the surgical technique is " extra capsular dissection surgical treatment: " The skin incision was done with put in our mind the line of creases of the face and neck (Redon incision), the incision begin from the pre auricular region and

extends until to the ear lobe (Figure 1). During dissection careful attention was paid to maintaining the integrity of the tumor capsule by performing a wide excision of the parenchyma surrounding the tumor (about 1-2mm from the tumor) but without matching of the facial nerve and the anterior margin of the mastoid, and then continues posterior along the mandibular angle. In patient with lump on the mandibular jaw angle (parotid tail) , a modified technique was used ,the skin incision of the pre auricular region was avoided or shortened , and the marginal mandibular branch of the facial nerve was identified and preserved ,as mentioned that ECD is done with careful dissection around the tumor capsule. A loose areolar plane, about 1- to 2 mm near to the tumor capsule is the represented the plane of dissection, we are not use of intra operative facial nerve neuro monitoring but we use bipolar cutterly with attention to prohibit trauma to the branches of the facial nerve .



Figure (1):Extra capsular dissection (preauricular incision)

Result

12 patients clinical examination was done each 30 days for the first five

months, and every three months for the first year and every 12 months for another 7 years for a 8 years follow up in total.

No recurrence ,no facial nerve palsy or weakness, with one case(8.3%) intra operative capsular rupture, and post operative salivary fistulas(table 1) were treated by a pressure dressing, and decrease fluid intake. there is no cases of Frey's syndrome. There were no differences in esthetic satisfaction. The main aspects of parotid surgery for pleomorphic adenoma are the removal of the lesion with adequate margins of healthy parotid tissue surrounding it and protection of the facial nerve, the ECD will provide this with the same effectiveness and fewer side effects relative to minimizes the incidence of facial nerve paralysis and recurrence and has improved cosmetic results the .Focus of parotid surgery were to the restricted of facial nerve palsy." In ECD the operative time is decreased and reduced the period of hospitalization, No postoperative depression on the operative site was observed (Figure 2) " . Although ECD is a conservative surgical method, but this technique its need more sample patients and long period for follow-up are needed to chief the effectiveness of this procedure.

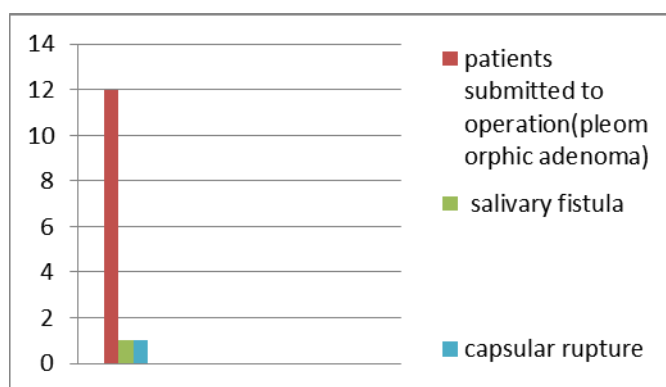


Table (1): Patients with pleomorphic adenoma and post-operative complication

Discussion

Transient or permanent facial nerve dysfunction, Frey's syndrome, sensory deficits, and sialocele, these risks prompted surgeons to adopt ECD which may be represented the choose treatment for pleomorphic adenomas positioned in the superficial lobe of the parotid gland (9)" which include removal the tumor only and a part from the normal parenchymal tissue from the gland with the maintain of parotid function (10). This method give similar result and efficacy and a little side effects than superficial parotidectomy and therefore bring down the occur of facial nerve trauma and Frey's syndrome (11).

ECD should be differentiated from enucleation. the latter is a technique is including removes the tumor immediately beyond the tumor capsule without removing any adjacent surrounding normal tissue (12). We thought the preoperative fine needle aspiration (FNA) is not necessary.(2)" Many factors need to support this technique like tumor mobility within the gland, a thin capsule covering the glandular tissue, and the tumor is large to permit manual manipulation during dissection the tumor " (4)." ECD can be differentiated from intra capsular

enucleation, its including incising the capsule of the tumor and enucleate the tumor, this lead to high grate of recurrence due to resection the tumor in completely and seeding of the tumor within the parotid bed. ECD give same effect and little side effects from superficial parotidectomy and could be considered as the treatment of choice for tumors located in the superficial portion of the parotid gland(3)".



Figure (2): post operatively show no local depression

Conclusion

Extra capsular dissection (ECD) is a safe and reliable procedure compared to superficial parotidectomy with advantages in the reduction of permanent and transient facial nerve palsy, Frey's syndrome and contour defects are minimized reduced operative time

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