Lumps and swellings of the salivary glands

Emeritus Prof. John D. Langdon – King’s College London, UK

Lumps and Swellings of the Salivary Glands

(Part 2 of 2)

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Management of salivary neoplasms

The majority of neoplasms arise in the parotid gland

The majority of neoplasms are benign

When dissecting in the plane of the facial nerve, often the nerve is in direct contact with the tumour

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The tumour is not removed with a cuff of unaffected tissue

Complications

- Recurrence
  - Residual disease
  - Rupture
- Facial nerve injury
- Frey’s syndrome

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By and large the facial nerve is forgiving – damaging one of the named branches other than mandibular one of the reciprocal arcades will pick up the nerve supply.

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BUT the mandibular nerve has this reciprocal innervation in 6% of facial nerve cases

Superficial parotidectomy

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Parotidectomy for salivary neoplasms
(n=111)

- Frey’s syndrome 19.8% (22/111)
  - Arises from re-innervation of the sweat glands within the skin with the parasympathetic fibres from the cut bed of the parotid gland
- Mean delay of onset 28 months
- Range 6 months to 11 years

Langdon JD (1984)

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Radical parotidectomy

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Mucoepidermoid carcinoma

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Facial nerve and parotidectomy

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Facial nerve and parodectomy

- Comparison of survival rates with and without preservation of facial nerve:
  - It is clear that sacrifice of the facial nerve does not affect survival and recurrence

Current normal practice is to preserve the facial nerve if possible

Mucoepidermoid carcinoma

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Malignant pleomorphic adenoma

- Not normally diagnosed preoperatively
- The surgery is the same if tumour is benign or malignant
- Tumour is confined to the gland

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Malignant pleomorphic adenoma

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Malignant submandibular tumour

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Minor salivary gland tumours

Preoperative biopsy essential

- Palatal - 50% benign or low grade
- Buccal - 50% benign or low grade
- Sublingual - 99.9% malignant

Adenoid cystic carcinoma

Degenerative disorders

Primary Sjögren’s syndrome
Secondary Sjögren’s syndrome
Lymphoepithelial disorder
HIV disease

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Sjögren's syndrome

Primary - absence of other autoimmune disorder

Secondary - existence of other identifiable autoimmune disorder disorder

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Sjögren’s syndrome

Primary - absence of other autoimmune disorder

• Many of these patients will develop an autoimmune disorder
• Laboratory investigation includes:
  – Measure lacrimal gland secretion
  – Salivary gland flow
• Patients commonly have anti SSA/SSB antibodies

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Sjögren's syndrome

• Dry eyes - keratoconjunctivitis sicca
• Dry mouth - xerostomia
• Salivary gland enlargement occurs in only 25-60%

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Secondary Sjögren’s

- Classically appears mostly in middle aged females
- Females are affected 10 times more than males

Punctate sialectasis (Sialogram)

- In punctate sialectasis of destructive salivary gland disease the acini are more or less the same size
- Each is joined to a collecting duct

End stage sialectasis (Sialogram)

- Almost no acinar structure left in the parotid glands
- Management is problematic
- Symptomatic treatment with saliva substitutes – which is not liked by many patients

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Mikulicz’s syndrome
(Multiple exocrine lymphomas)

- Original description of Mikulicz’s syndrome actually showed a number of different pathologies
- Now called multiple exocrine lymphomas
- Most patients present with B cell lymphoma

Mikulicz’s syndrome
(Multiple exocrine lymphomas)

- Some Sjögren’s syndrome patients also go on to develop non-Hodgkin’s lymphoma – 4%
- Most of the tumours will be mucosal associated lymphoid tissue lymphoma

Lymphoma risk

‘Benign’ lymphoepithelial lesions occur in the majority of patients with Sjögren’s syndrome and parotid enlargement. Small risk of malignant change

Approx. 4% of all patients with Sjögren’s syndrome will develop non-Hodgkin’s lymphoma usually a MALT B-cell lymphoma

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Salivary lymphoma

- This is a patient with 'conventional' Hodgkin’s disease which is presenting in a parotid lymph node
- There are facial lymph nodes within the mass of the parotid

HIV disease (MR scan)

- Patient presented with large bilateral parotid swellings
- For cosmetic reasons bilateral parotidectomy performed
- ~10% of HIV patients may develop such cysts
- Also develop B cell lymphomas

Age changes

Oncocytosis

- Oncocytes to acinar cell ratio is higher in older persons than in younger persons who have more acinar cells
- This explains why elderly patients often complain of a dry mouth
- Occasionally these oncocytes aggregate and present as a mass – oncocytoma
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Age changes

**Sialosis**
- A swelling of the salivary glands
- Can be due to a variety of causes
  - Hormonal e.g. diabetes
  - Nutritional
  - Alcohol

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