Background

- **74 year old female**
  - 1994- secondary amenorrhoea, prolactin 30,000 mu/L
  - CT -> pituitary macroadenoma, extension to the sellar floor and the sphenoid bone, no chiasm compression
  - 1995 - external beam radiotherapy as lesion unchanged in size despite dopamine agonist and prolactin suppression
- **Remained well for 23 years**
  - 2017 - Routine CT - no recurrent tumour but noted destruction of sellar floor
- **PMHx** - COPD, AF on apixaban

Investigations and Results

- **CT angiography (intracranial)**
  - bony defect right sphenoid sinus in keeping with osteoradionecrosis
  - exposure of the right internal carotid artery
  - features of recent haemorrhage
- **Final diagnosis**
  - sphenoid osteonecrosis
  - life threatening haemorrhage from exposed internal carotid artery
  - **Significant co-morbidity** - managed conservatively

Re-presentation

- **2018 presented acutely - severe epistaxis**
- Unable to control with conservative measures, ongoing significant haemorrhage
- ENT theatre - operative haemostasis
  - bleeding from the right sphenoid sinus noted

Discussion

- Pituitary macroadenomas can more rarely extend down and erode into sphenoid bone presenting unique challenges
- Osteoradionecrosis is delayed and persistent necrotic bone in a radiation field in the absence of recurrent neoplasm and is well described in head and neck cancers
- Acute internal carotid artery haemorrhage is previously described in context of osteoradionecrosis of the skull base with radiotherapy for nasopharyngeal cancers but not previously reported in pituitary disease
- We postulate this a rare long term side effect from invasive pituitary disease exacerbated by radiotherapy treatment

References