

# Staging Oral cavity

## **T-staging oral cavity**

- T1 =  $\leq 2$  cm in size
- T2 =  $> 2$  cm,  $\leq 4$  cm in size
- T3 =  $> 4$  cm in size
- T4a = invades cortical bone, deep muscles, maxillary sinus, skin
- T4b = masticator space, pterygoid plates, skull base, ICA

0:04

# Important for Surgeon

- Mandibular invasion
- BOT and OP
- Bilateral involvement

# Mandibular Invasion

## **Mandibular invasion**

- Adjacent tumor (periosteum)
- Cortical defects (cortex)
- GAD into cortex (cortex)
- Marrow replacement (marrow)
- Both sides of bone (marrow)

0:13

# MRI

## Results

- 100% sensitive with cortical defects, enhancement, but 50% specific for cortical invasion
- 100% sensitive but 71% specific for bone marrow replacement on T1W

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# False positive

## **False positive**

- Dental disease
  - Tooth extractions
  - Dental decay
- Radiation fibrosis
- Osteoradionecrosis
- Partial volume effects

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# Conclusions

## Conclusions

- Negative MR has great benefit (100% sensitivity)
- Beware patients with extractions, dental caries
- Combined use of panorex, dental films with MR

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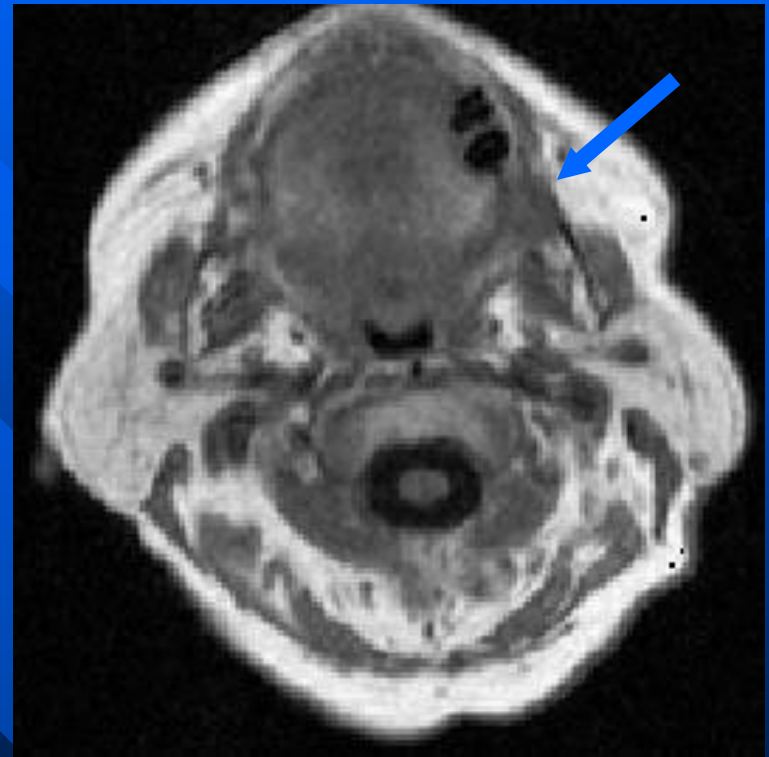
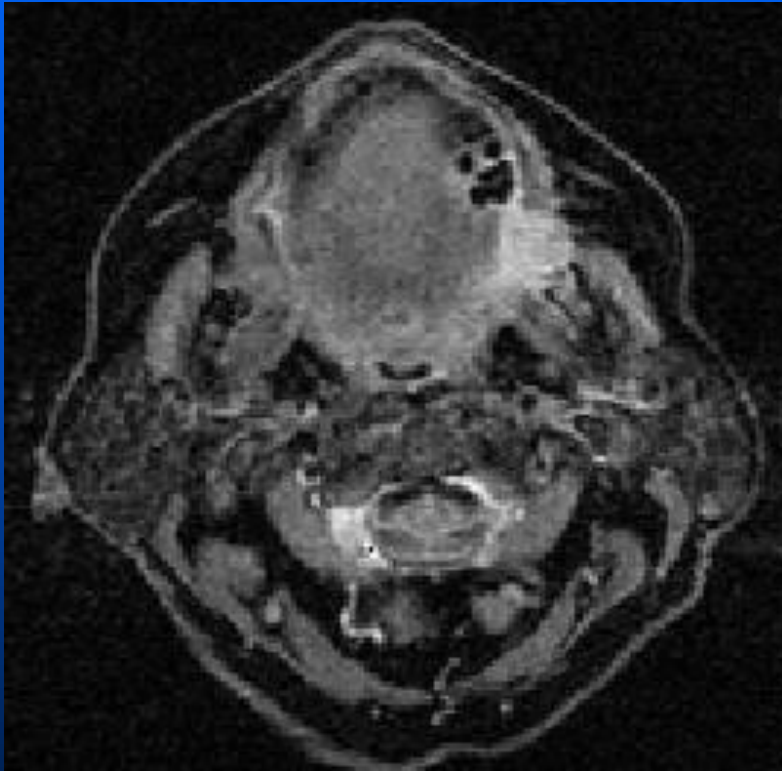
# Other Issues

- Spread from RMT to PPF
- Spread from pterygomandibular raphe to skull base
- Neurovascular bundle in FOM

Because SCC is so common, will see a lot of peri-neural spread, can also see with lymphoma

**Recurrence tends to be more focal, tx changes more diffuse.**

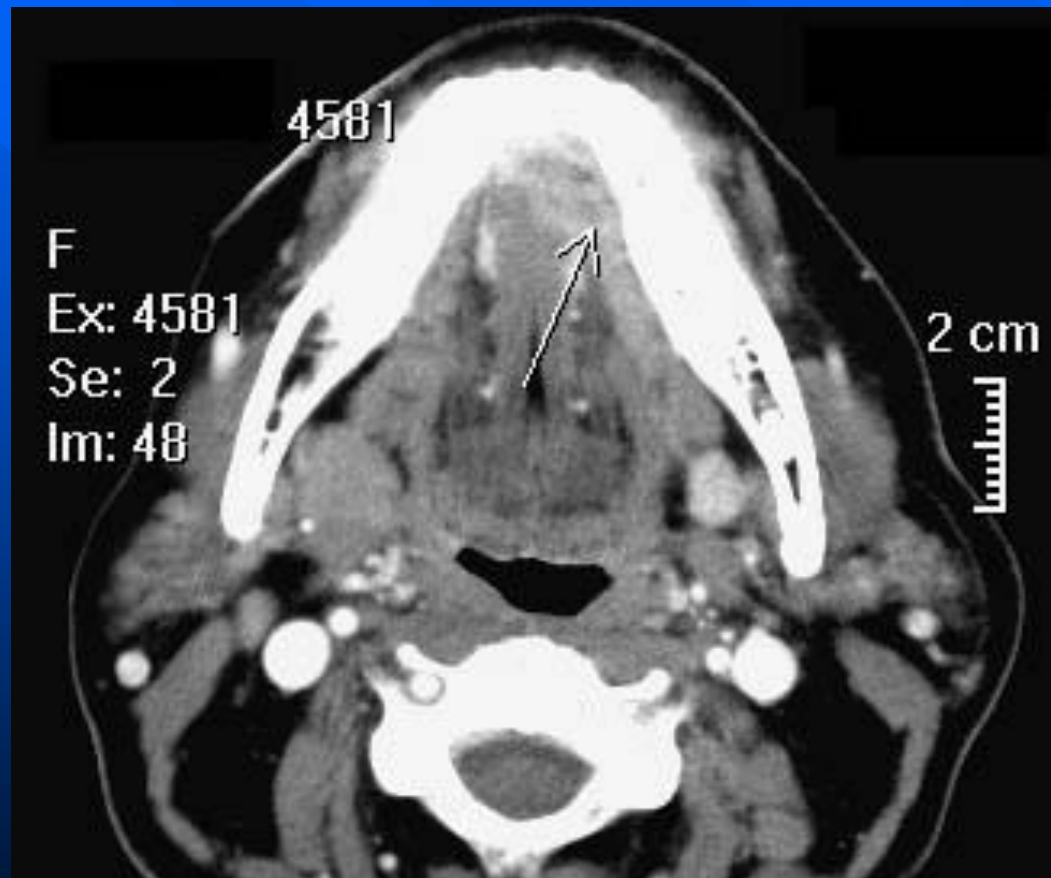
# SCC of the left gingiva



Low signal area in the left  
retromolar area



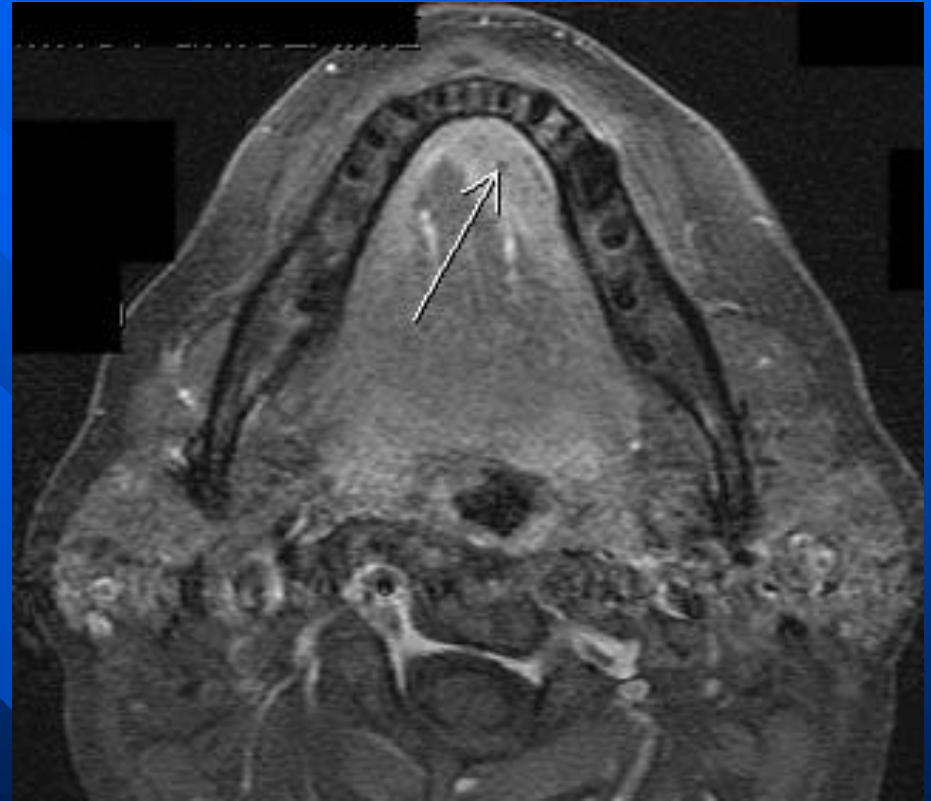
# Squamous cell carcinoma of the floor of the mouth



# Squamous cell carcinoma of the floor of the mouth



T2- lesion invades the  
genioglossus muscle



midly enhances with contrast