

65 year old man PS 1

Biopsy: Basal cell carcinoma anterior to right ear.

The lesion is 4mm thick and 12mm in diameter

What are the treatment options ?

What are their advantages and disadvantages ?

Surgery may remove part of the ear so could be less good cosmetically and functionally if he wears glasses for a 3.

But modern techniques should mean this is possible and could be the treatment of choice.

Small risk of radionecrosis but he is fit and relatively young so not a problem. Needs multiple visits for RT for a 3.

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What mode of treatment do you recommend?.

Radiotherapy is a 3,
Surgery is a 3 provided
No resection of the ear
cartilage

Use superficial 90-140kV
for a 4

But electrons is a 2 but
not terrible



65 year old man PS 1
He is not keen on surgery

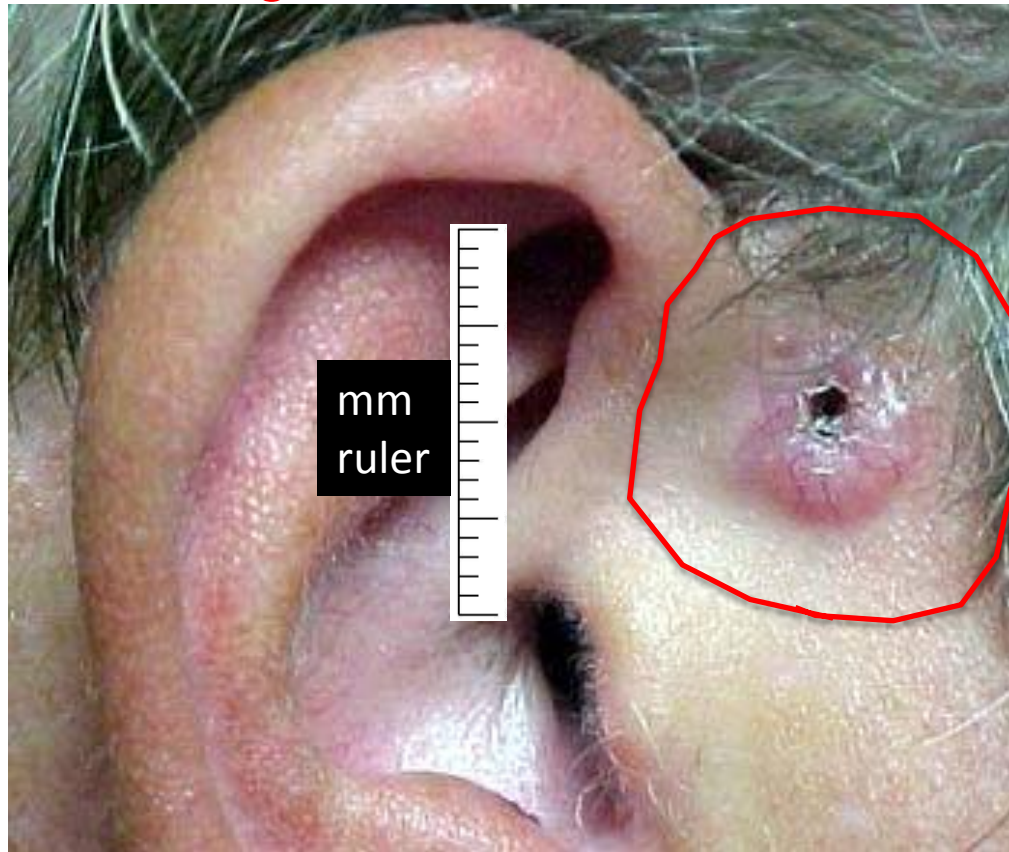
The lesion is 4mm thick and 12mm in diameter
How best would you to treat this with radiotherapy ?
All types of machinery are available.

kV for a 3
Electrons for a 2



Draw the field for this treatment

5mm margin for kV photons as well defined for a 3 If
10mm is a 2 as well defined
if using electrons must have 10mm margin and many
say minimum field diameter is 40mm. Cannot penalise
again for selecting electrons if these stated is a 3



Modality, Dose, Fractionation

Should use superficial radiotherapy 90 – 140 kV, although close to the pinna, he is healthy and the ear is healthy so any discussion about the risks of cartilage necrosis is not an issue.

Electrons are a 2 as this would require a much bigger field 40 mm at least and would encompass much more of the pinna with a greater risk now of cartilage necrosis and so need to fractionate longer, Would require mould room to make wax plugs for the air gaps and wax bolus.

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What is your dose and fractionation ?

18 or 20 Gy in 1 fraction is a 2 as just too big

35 Gy in 5 F for a 3 however if says longer fractionation for cosmesis in a younger than average skin patient is a 4

45 Gy in 10 F for a 3 but if some concerns to reduce cartilage dose is a 4

20F or more is a 2 too protracted



A different Case

78 year old man 6 weeks history tender enlarging lesion on his right ear
How should he be investigated ?



- History of other malignancies or previous RT for a 4
- Examination looking for fixity to bone tender cartilage
- Palpation of nodes pre auricular, parotid level 5
- CT for nodes
- Biopsy
- If asks for CT scan for depth of invasion and spread down ear canal because the picture cannot give clear impression of this direction of spread, agree and say it was very superficial

- All 4 of test fixity, nodes, biopsy and CT scan for nodes a for a 4
- 3 for a 3 2 for a 2 1 for a 1

78 year old man

Biopsy is a Merkel Cell Tumour

Further staging is Clear

What do you advise ? **Surgery wide excision and sentinel node dissection usually advocated but here with wide margins 3-5cm and elderly may refuse but if knows surgery is best is a 3 and a 4 if states node dissection**

Also debate about the use of adjuvant chemotherapy is states the uncertainty but considers is a 4

If routine chemotherapy for this is a 2

Examiners note

If says RT say “fine” and move on,

If says surgery say “Yes we agree this is the best management but he refused” and move on

78 year old man Merkel cell tumour accepts radiotherapy.
A radical dose is to be given.

What dose and fractionation do you advise here ?

Up to 60Gy for Merkel and in this location will have to fractionate longer so 18GY in 1 is a 1, 35 in 5 is a 2

45 in 10 is just a 2 due to large field size with 3cm margin

50 in 15 is a 3 55 in 20 or 60Gy or more in 30F is a 4

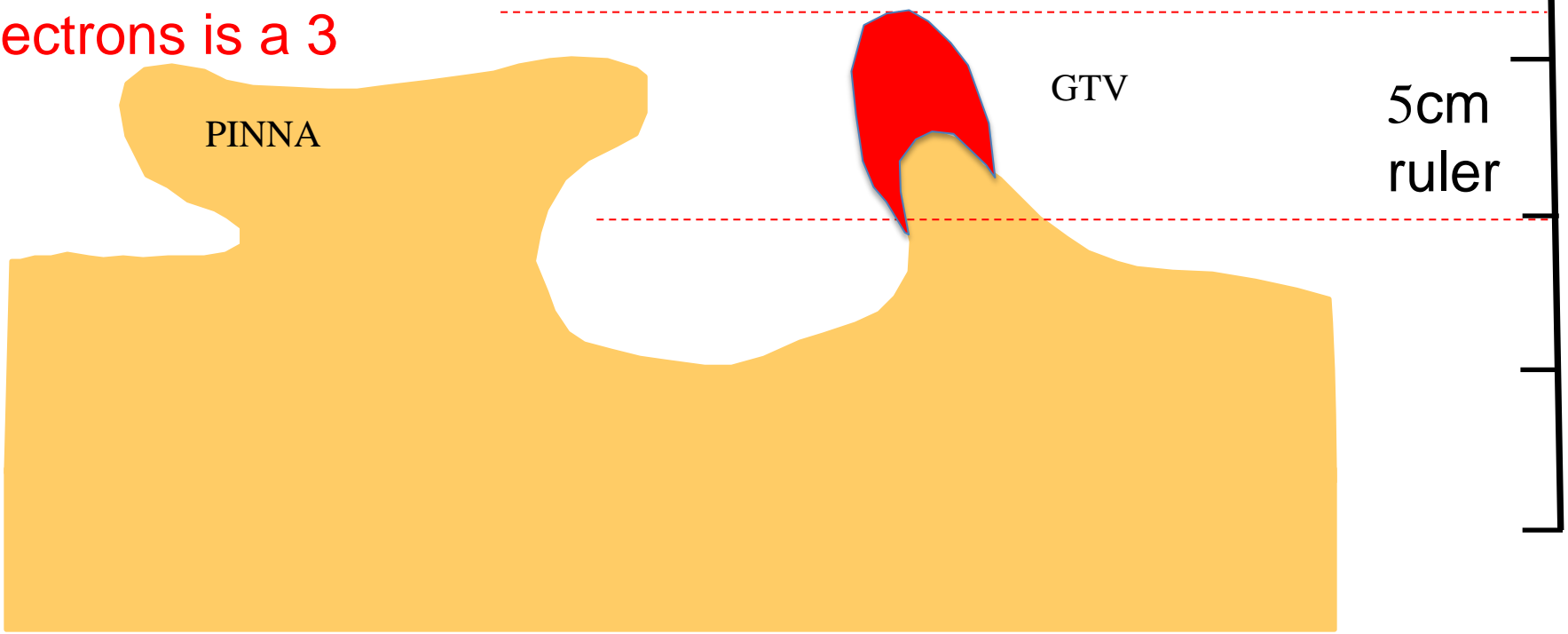
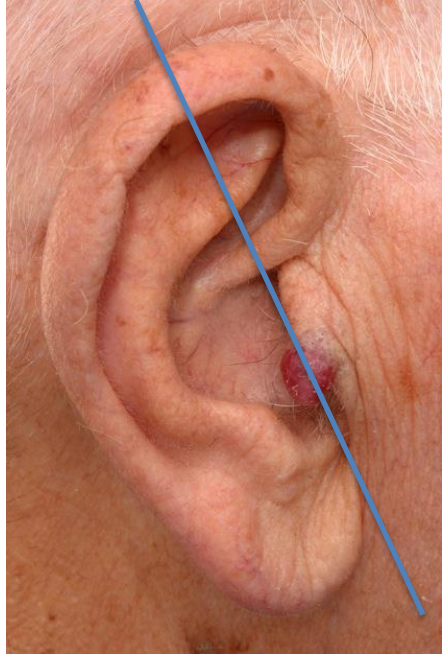


Merkel cell tumour of the tragus.

Recommended GTV to CTV margin is 2.5cm
The diagram shows the ear along the blue section line

What form of radiotherapy will you use ?

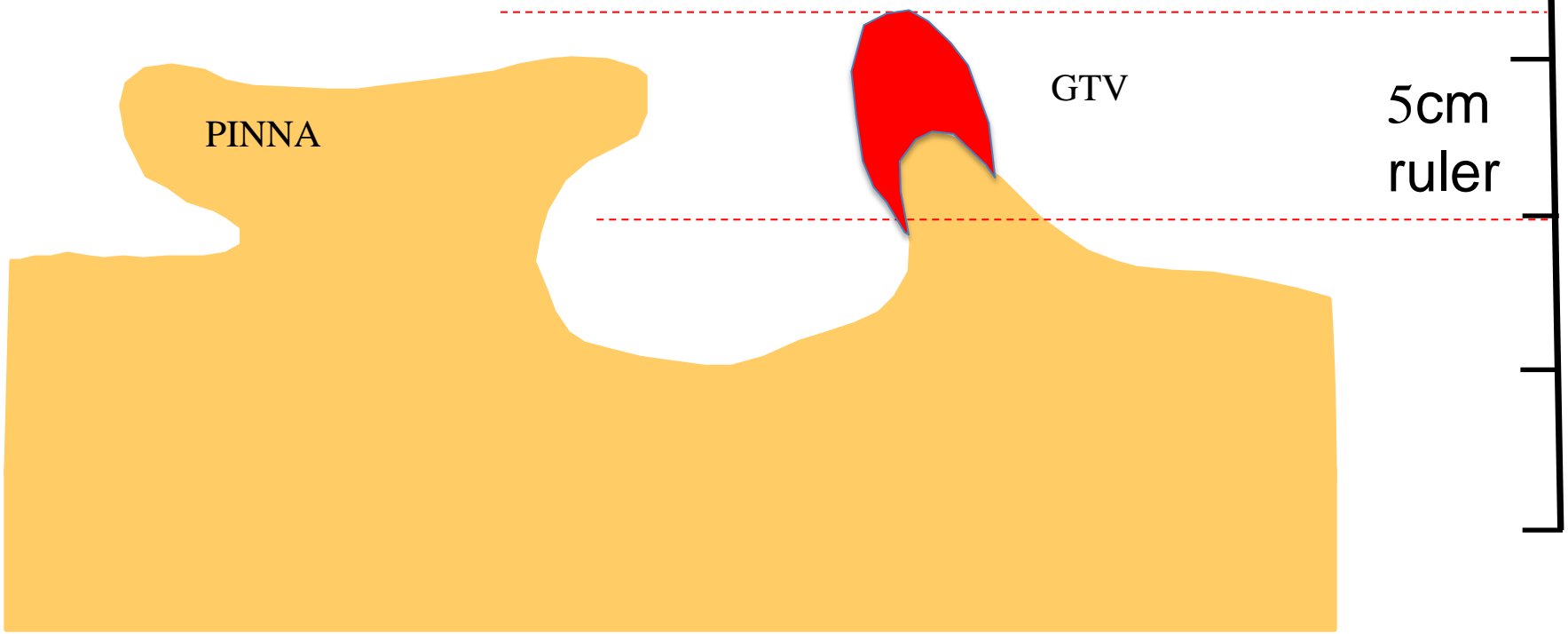
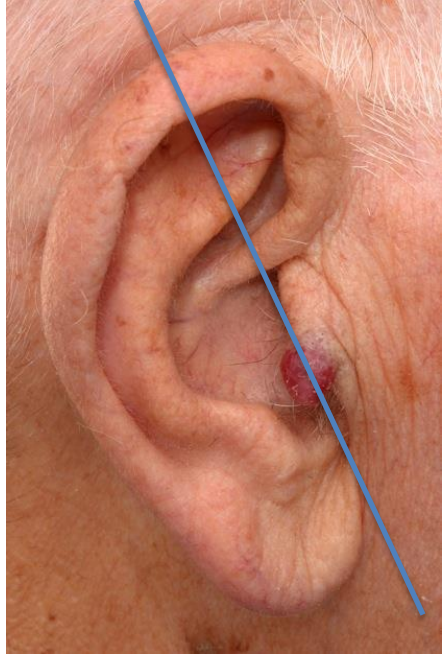
Even if wants planned photons the field is large and likely higher dose at depth so is a 1
Electrons is a 3



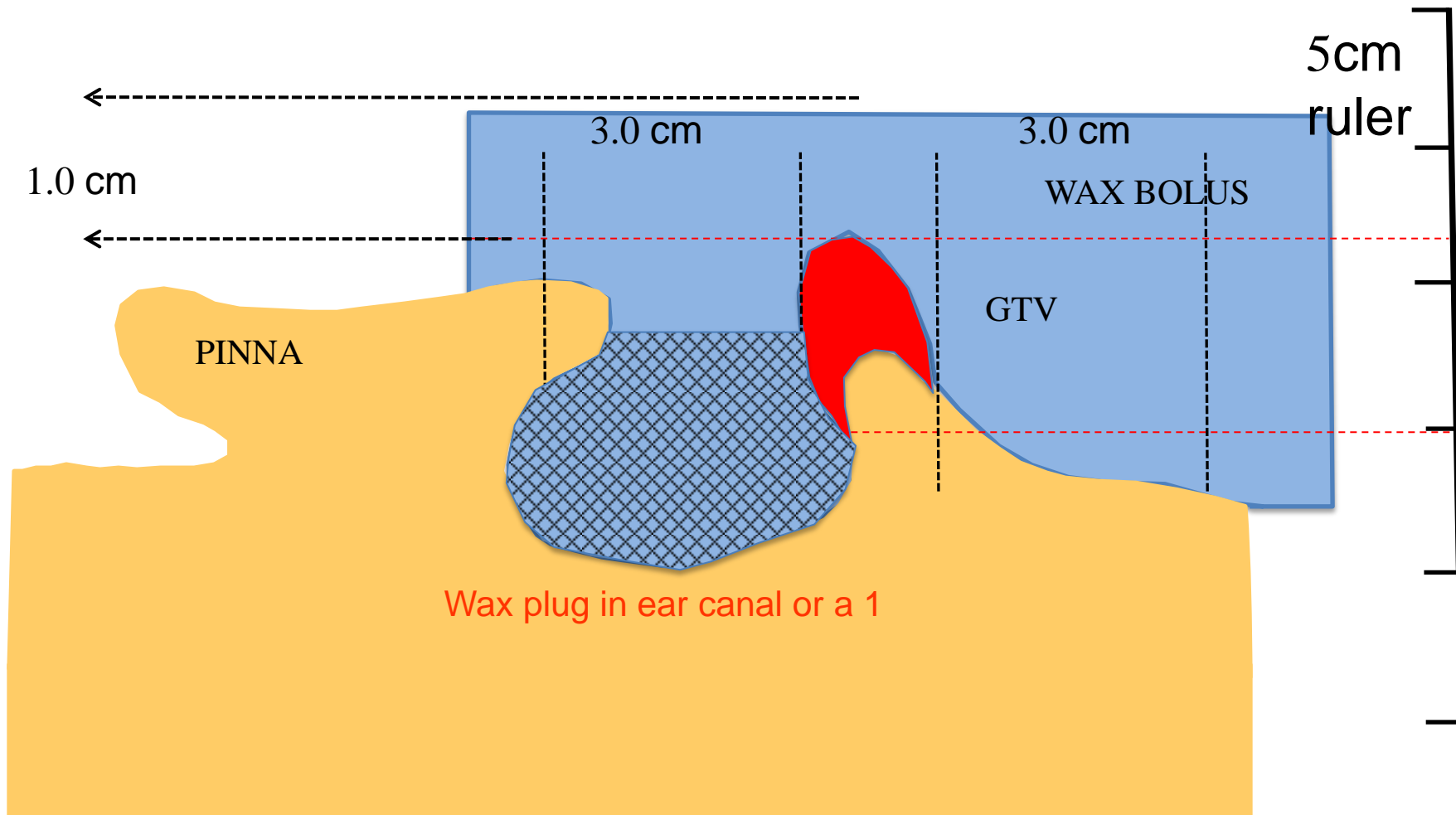
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The diagram shows the ear along the blue section line

Give cartoon to draw on KEEP this slide on screen



Draw how would you irradiate this?



Draw how would you irradiate this?

GTV depth is 1.5cm

Must have wax plug within ear canal or a 1

Bolus of at least 10mm over highest part of tumour or a 1

Must allow 1cm GTV-PTV at depth or a 1

Must give 1cm build up. Therefore need 90% at 3.5cm

Must be 12 MeV for a 3 more bolus say, to 13 mm

to pull back at depth for a 4,

9MeV is a 2

15MeV with more than 10mm bolus is a 2

Additional notes

- Must use Pb cut out with at least 3-5cm radial margin for a 4 but do not penalise again if got earlier margin question wrong
- Must be 12 MeV for a 3
- If say could add a little more bolus say, to 13 mm to pull back at depth for a 4,
- If 10Mv (does anyone have 10) is a 2
9Mev is a 1
- 15MeV with more than 10mm bolus is a 2

Essentials

BCC

Surgery: 2 Electrons 1 kV photons for a 3

Advantages of surgery less risk radionecrosis for a 3 but low risk anyway and less deforming with RT for a 4

5mm margin for a 3 10mm margin with kV is a 2 but if using electrons is a 3

35Gy in 5fr or 45Gy in 10fr :3, but provisos for 35 in 5 for age

Essentials

MERKEL

History of other malignancies or RT for a 4

Investigations and exam 4 for a 4, 3 a 3, 2 a 2, 1 a 1

Knows surgery is usual but destructive here for a 4

Knows needs higher dose for a 4 and if prefers wider margins is a 4
45 in 10 is a 2 35 in 5 is a 1

Treats with electrons for a 3 with photons is a 1

Must bolus tumour or a 1

Bolus in ear canal or a 1

If lead at base of ear canal to 'shield' brain is a 1

12MeV for a 3 or a 4 if wants to add a bit more bolus to pull back

9MeV is a 2 as may not cure 15MeV is a 2