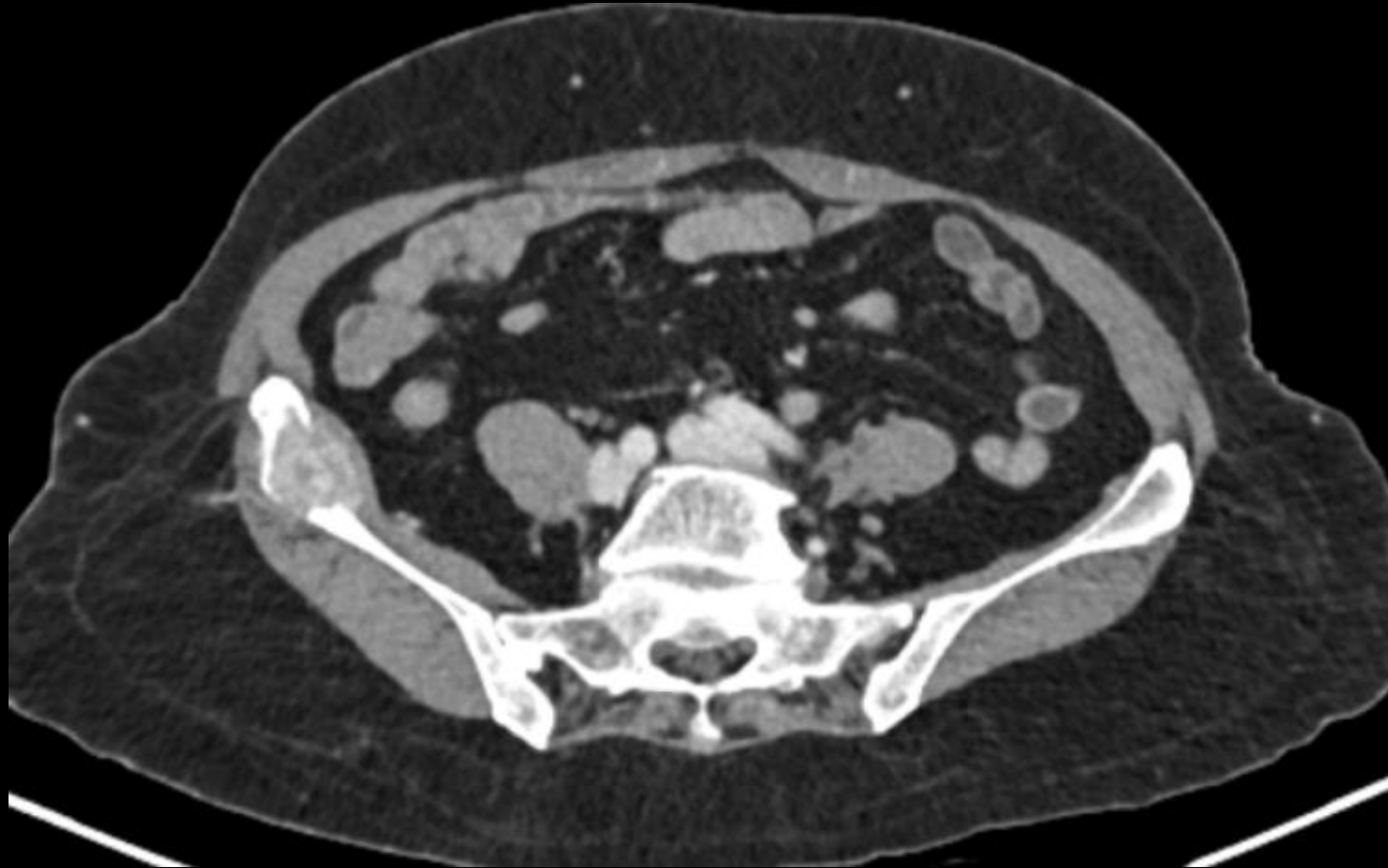




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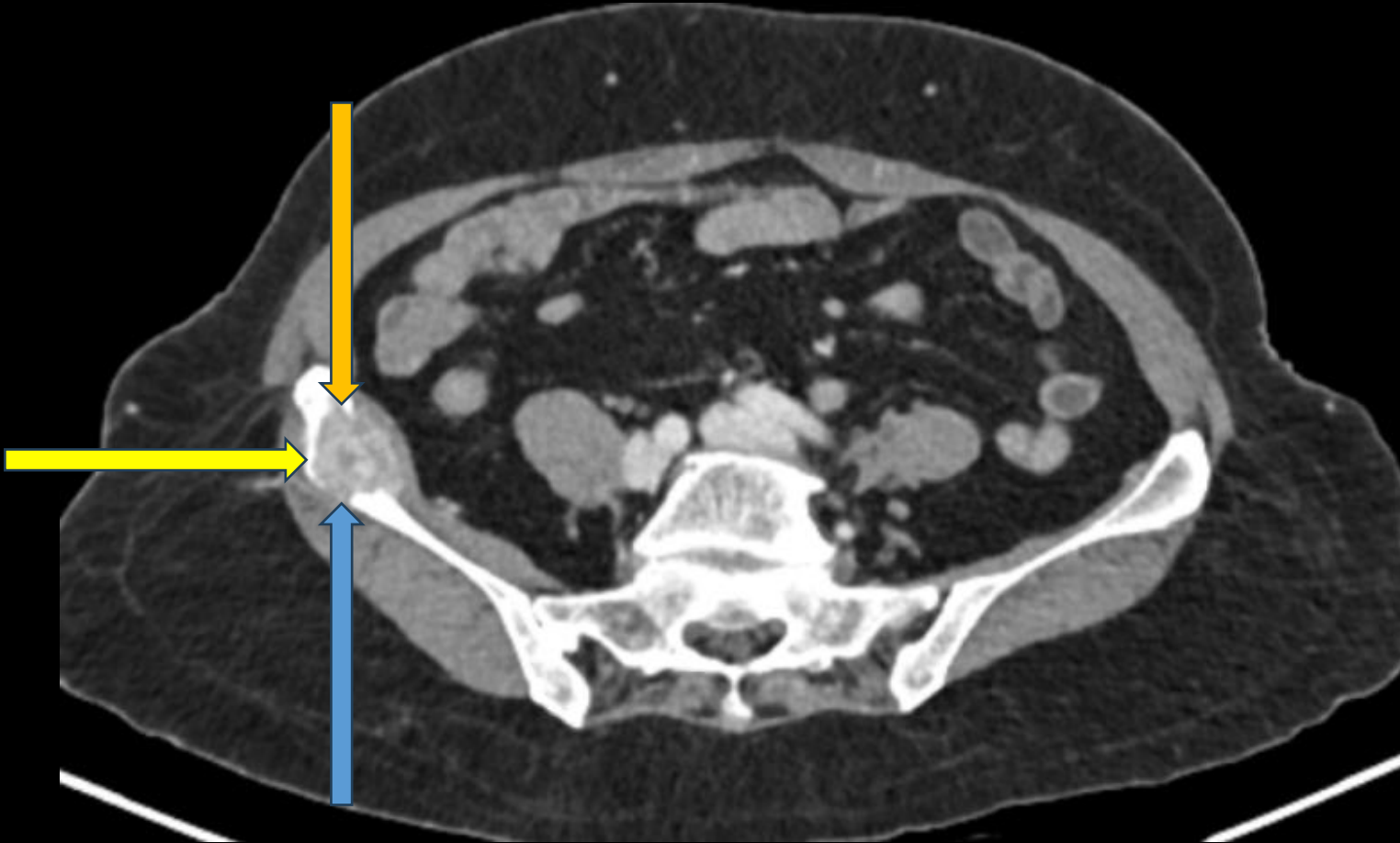
KARNATAKA RADIOLOGY EDUCATION PROGRAM

Referral for a CT guided biopsy from right iliac bone lytic lesion with soft tissue component.



Enhancing soft tissue deposit is noted in the right iliac bone measuring 1.4 x 1.1 cm.

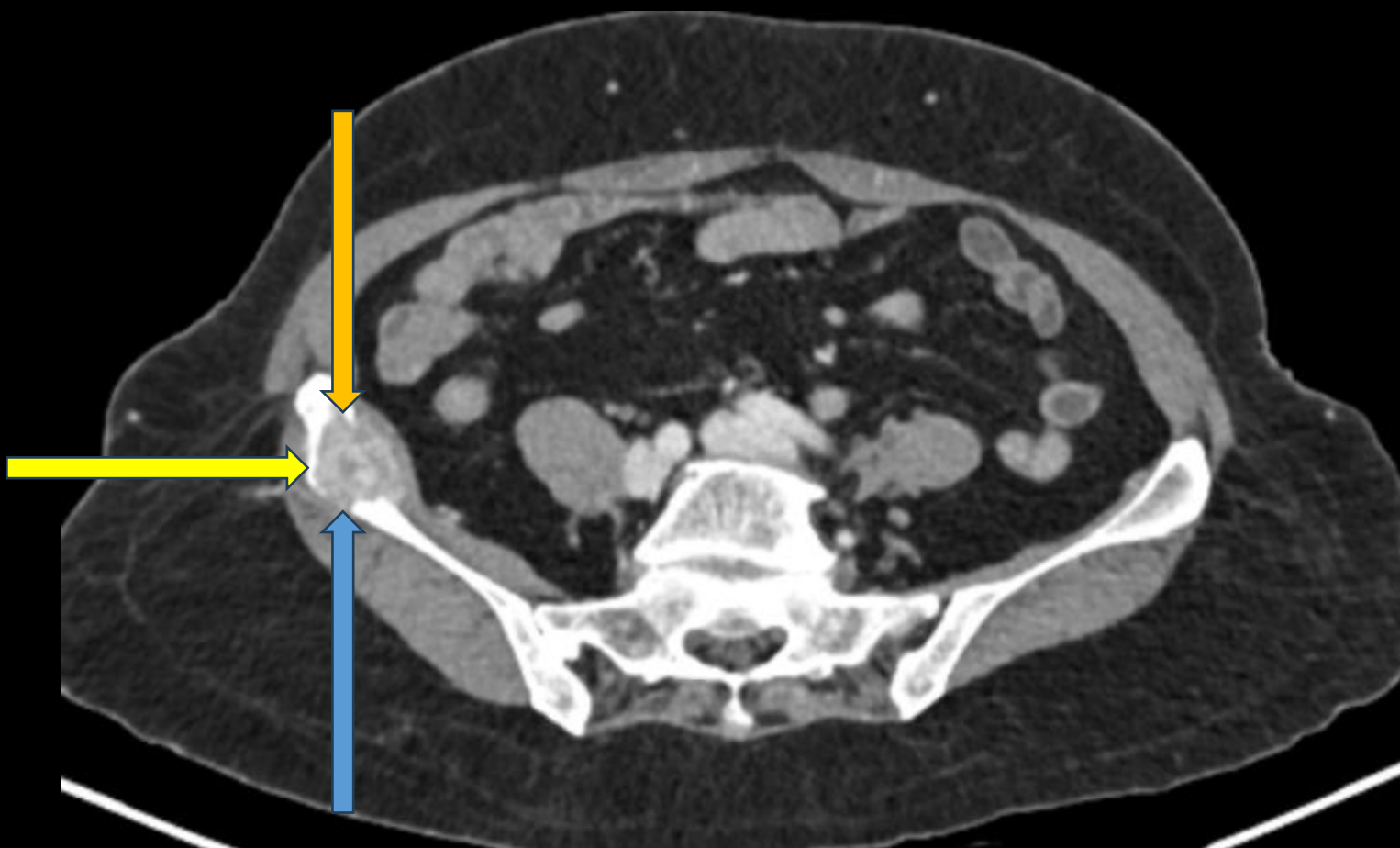
Referral for a CT guided biopsy from right iliac bone lytic lesion with soft tissue component.



- Which route is appropriate? Which biopsy gun to use?

Checklist

- Confirm patient details, request form, consent. Explain the procedure and risk of complications.
- Confirm the indication (site of biopsy, side, number etc)
- Review the clinical details (Sometimes sample in NS is needed for infection workup)
- Review the bleeding parameters.
- Secure an IV access.
- Keep the crashcart ready.
- Have a backup ready for high risk prone cases.

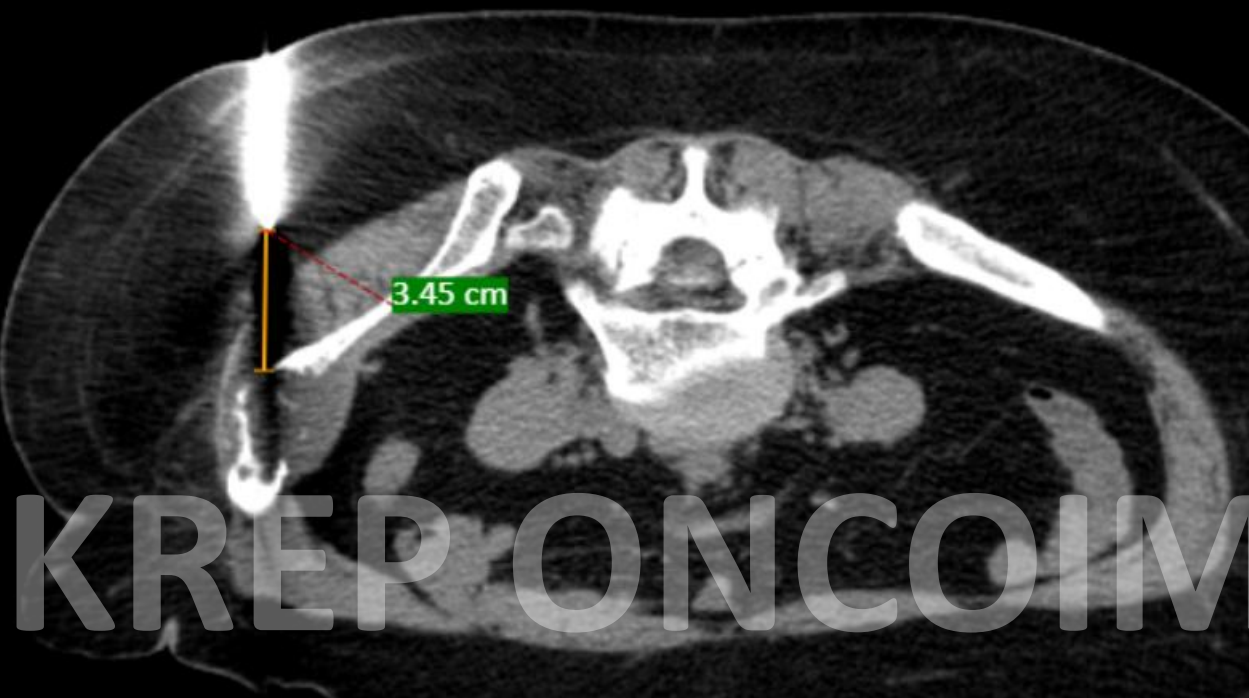


- **Orange** – Possible but will have to traverse abdominal wall, displace bowel then get a core which may not be ideal length.
- **Yellow** – Can be done but as compared to blue, thicker cortex. Core length might be shorter.
- **Blue** – Focal cortical defect in posterior aspect with good soft tissue component. Safe, easy with high chance of good yield.
- Since its soft tissue lesion, 18G x 15 cm semiautomatic core biopsy with coaxial. A Jamshedi needle is not required for this case.

Positioning and CT guidance



- Follow the ALARA Principle, limit the radiation dose to as less as possible. Use localizers and image about ± 10 mm.
- Try to reduce the number of exposures, at the same time the safety and precision should not be compromised.



- Aseptic precautions must be followed.
- Generous local anesthesia (7-10 mL) with proper technique.
- Advancement of coaxial should be checked for every 2 cm (in non critical areas), in critical areas, it is best to be sure of every 0.5 cm movement.
- Measure along the axis of advancement, always know your instrument anatomy, in this case, 3.5 cm advancement will leave the sampling zone 0.5 cm proximal from the needle tip.



- Ensure the position of sampling zone, in this case the sampling zone (dotted line) is proximal to the distal metal tip. The outer wider bore coaxial is just at the level of cortex.
- Rotate about 75-90 degrees for every core as the sampling zone is not a full cylindrical core but a half cylinder.
- Acquire sufficient tissue for HPE, IHC and molecular testing.
- If infection is suspected at any point of time, always send 2 cores in NS.

- Diagnosis – metastatic carcinoma breast.

Contributors

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