

# CLINICAL, DIAGNOSTIC, AND INTERVENTION APPROACH ON YOLK SAC TUMOR OF RECTUM: A CASE REPORT

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## OBJECTIVE

To elucidate the clinical presentation, diagnostic workup, histopathological and immunohistochemical characteristics, and therapeutic management of a rare case of extra gonadal yolk sac tumor of the rectum, with an emphasis on differential diagnosis and the importance of early recognition to optimize patient outcomes.

## Case presentation

18 years old with bleeding per rectum, weight loss had colonoscopy (Fig 1), showed rectal growth starting from 3 cm from the anal verge, biopsy showed yolk sac tumor (Fig a, b) , initial CT scan (Fig 2), shows irregular, circumferential wall thickening involving 5.4 cm of the rectum, starting approx. 3.1 cm from the anal verge with positive CRM at 1`o clock position and small, mesorectal lymph nodes. Two, heterogeneously enhancing masses are noted along the right pelvic side wall, likely nodal masses), Alpha-fetoprotein was 343.

## TREATMENT

After discussion in multidisciplinary team (MDT), the initial treatment with chemotherapy, of 4 cycles Bleomycin, Etoposide, and Cisplatin showed complete response in rectum on subsequent scans along with few pelvic nodes. On surveillance the rising alphafetoprotein mandated the pelvic side wall nodes biopsy with laproscopy. Per operatively the nodes were involving the iliac vessels and it was recommended to proceed with second line chemotherapy. Cisplatin-ifosfamide-paclitaxel (TIP) regimen given that showed no response, instead the disease progressed (Fig 3). The patient developed neuropathy and paraplegia thus the decision for bone marrow transplant and further systemic chemotherapy was abandoned. The patient started having diffuse per rectal bleed occasionally. The re- discussion in MDT concluded for short course radiotherapy followed by surgery.

On completion of 45 Gy/25 fractions the subsequent scans (Fig 4) showed size reduction of disease and patient underwent right adnexal mass excision with right salpingoophorectomy , omentectomy , appendectomy, peritoneal wall biopsy and washings with ultra-low anterior resection leads to complete removal of the primary disease. By 12 weeks post operatively the disease metastasized to liver and started with Vinblastin sulfate-ifosfamide-cisplatin (VeIP).

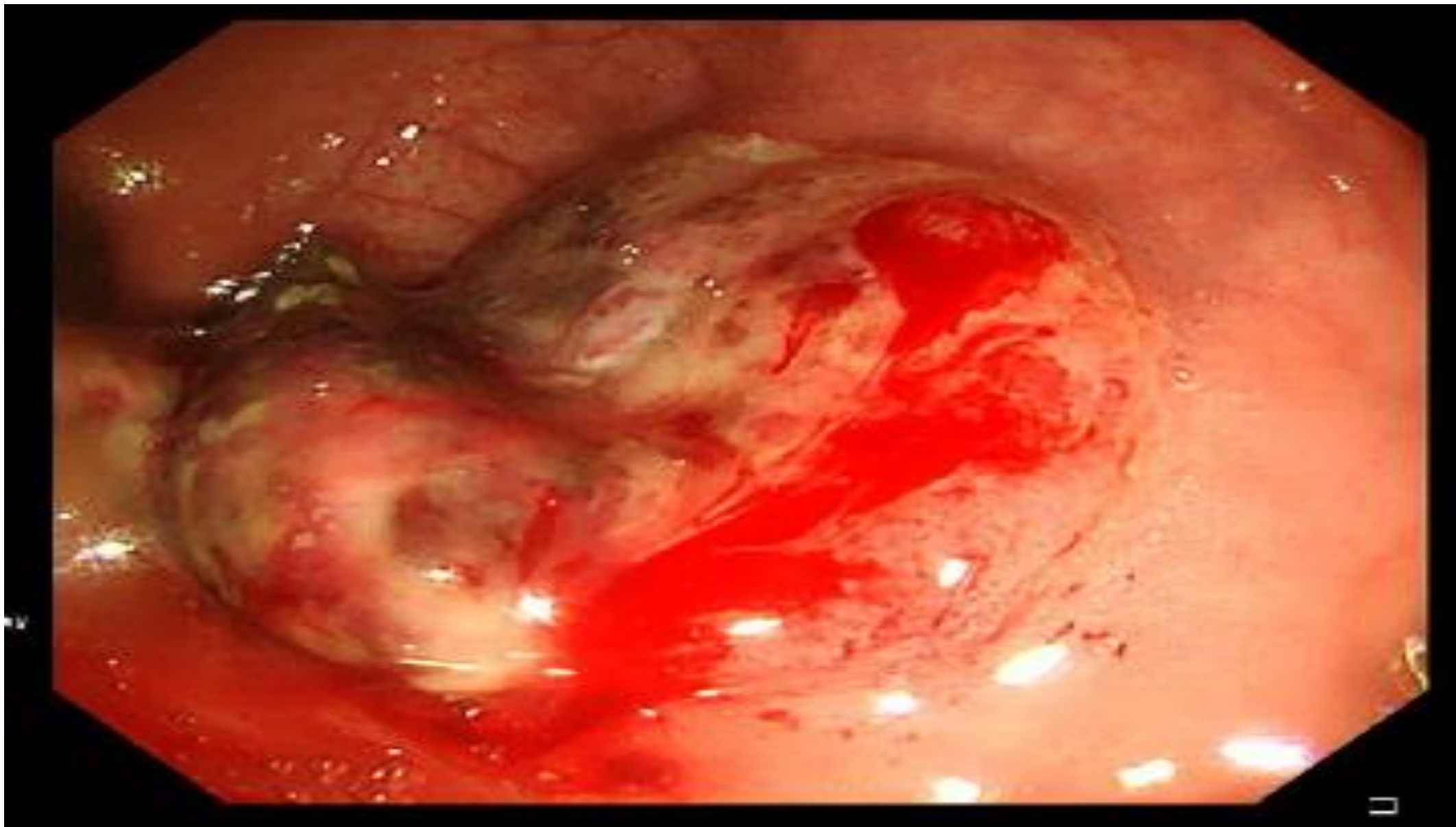


Fig 1: Growth on colonoscopy



Fig 2: pre treatment scans



Fig 3: CT scan before initiating the radiotherapy

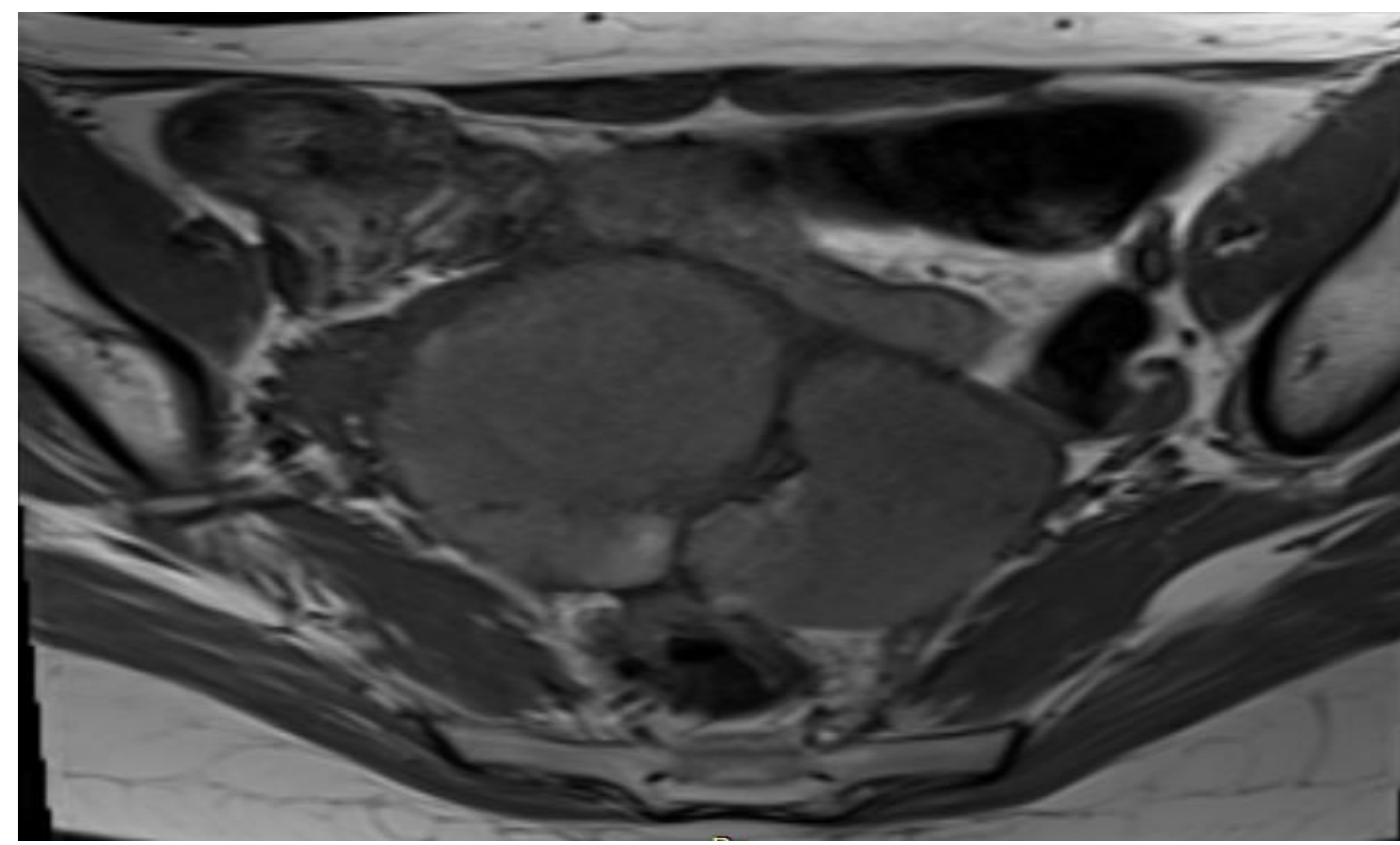


Fig 4 MRI before surgery , mass anterior to the rectum adjacent to the sigmoid colon

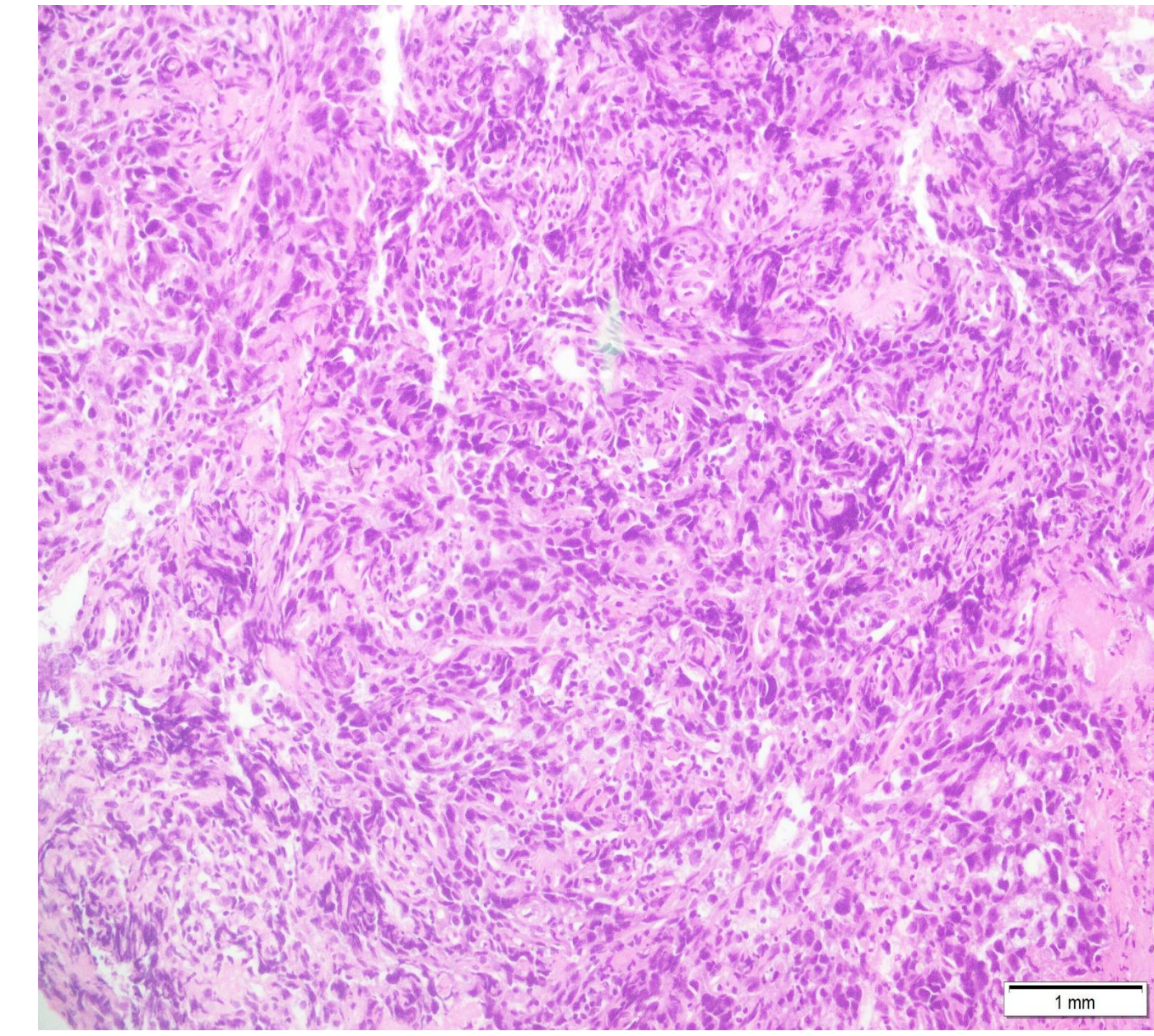


fig a: Initial rectal biopsy hyperchromatic to vesicular and pleomorphic nuclei,increased nuclear to cytoplasmic ratio and prominent nucleoli.

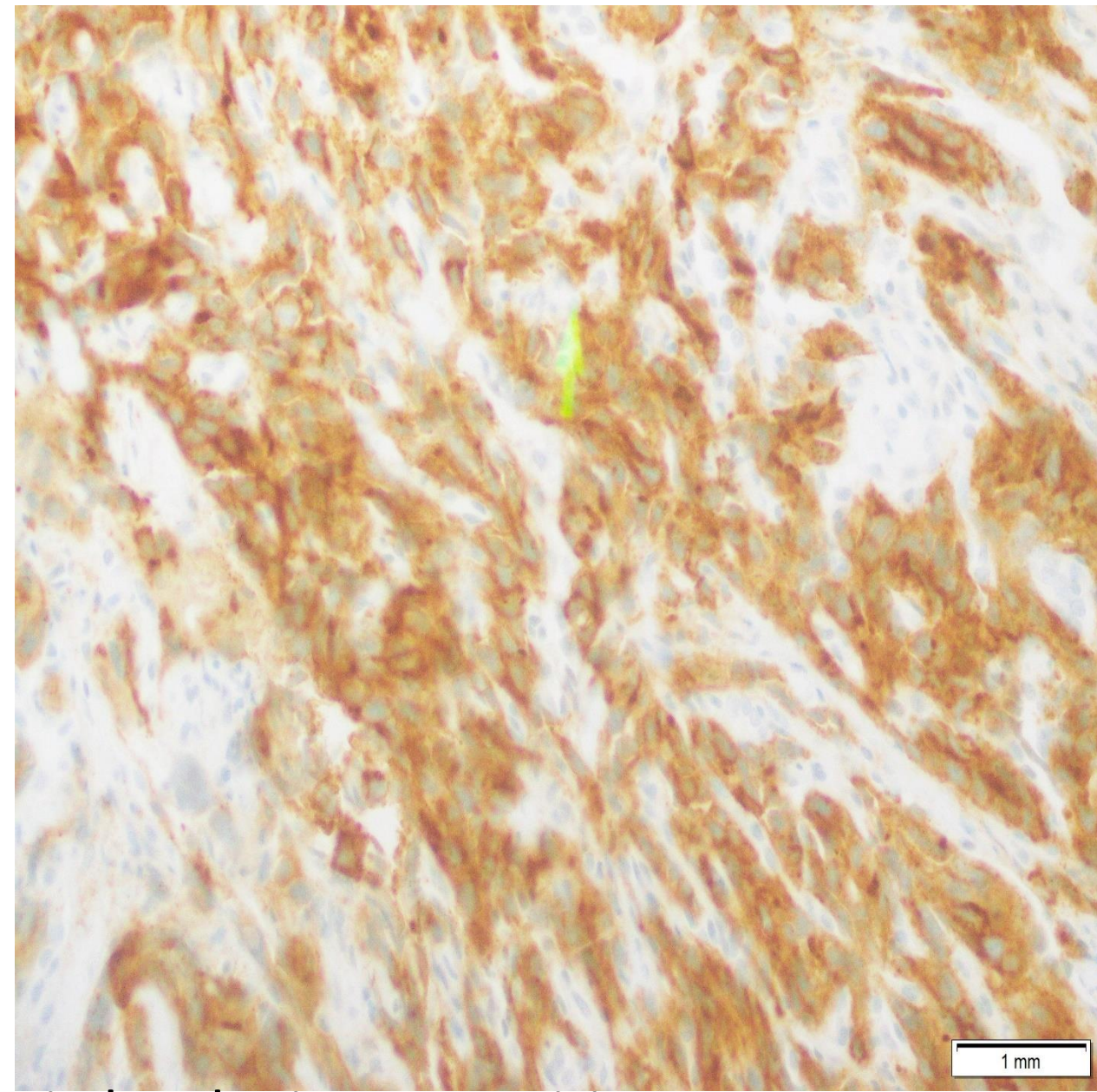


Fig b: Glypican 3 positive

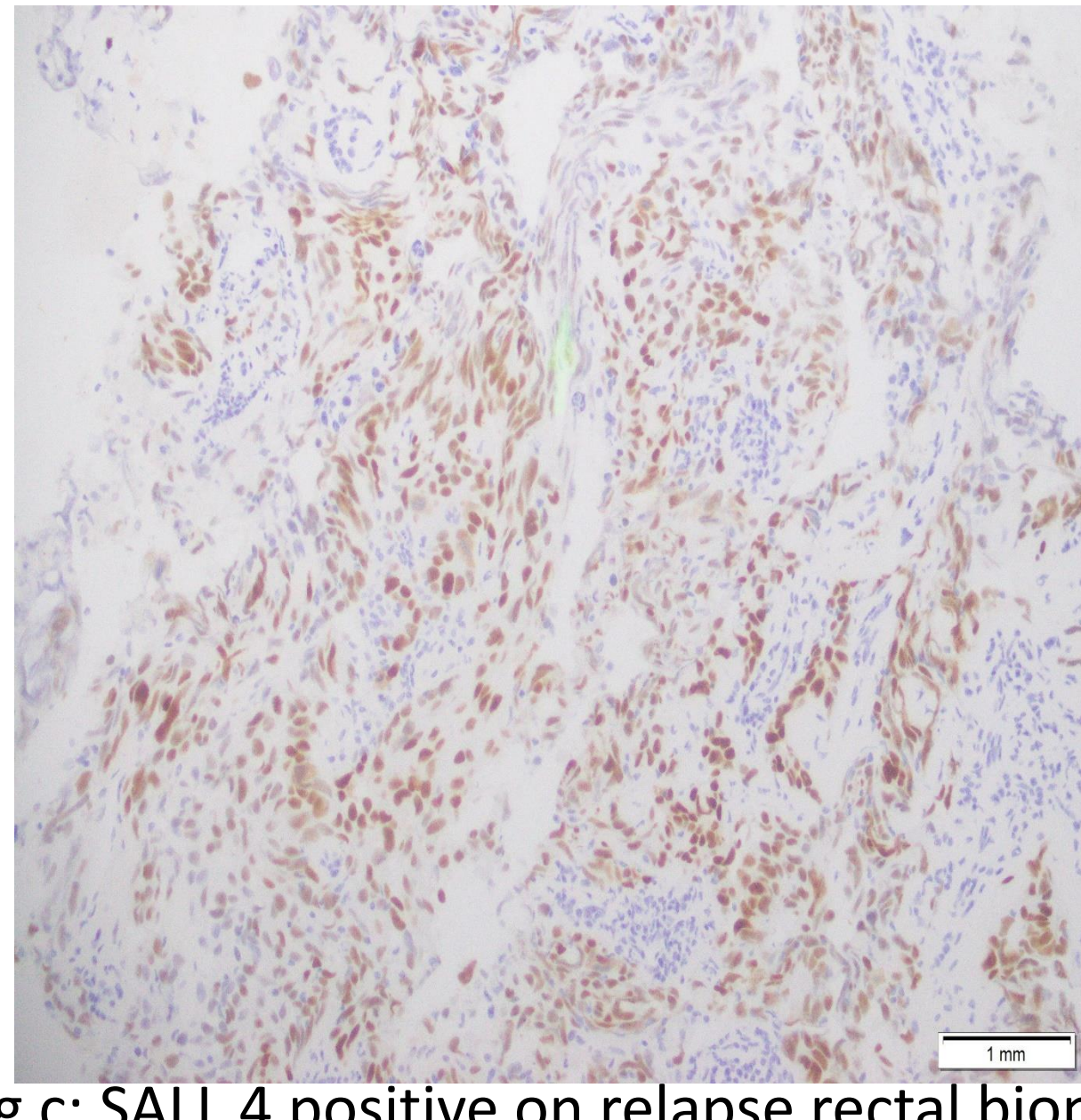


Fig c: SALL 4 positive on relapse rectal biopsy

## Discussion

Chemotherapy followed by prompt surgical intervention can provide a disease free survival (1). If chemotherapy is no longer effective, options to radiotherapy are proven to be Effective for local control. Although there was metastasis to liver in our patient in later stage, radiotherapy was shown to be effective on the local progression of disease and affecting patient quality of life (2). However, there are only a few reports regarding successful radiotherapy procedure for Yolk sac tumor have been reported so far(3).

## CONCLUSION

In inoperable disease radiation provides good local control in the disease progression. Since it can be life-threatening, the primary discussion in multidisciplinary team should involve pediatric oncologist, gynecologist, surgical oncologist, medical oncologist along with radiologist and radiation oncologist to sought better approach as per the expertise.

## References

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