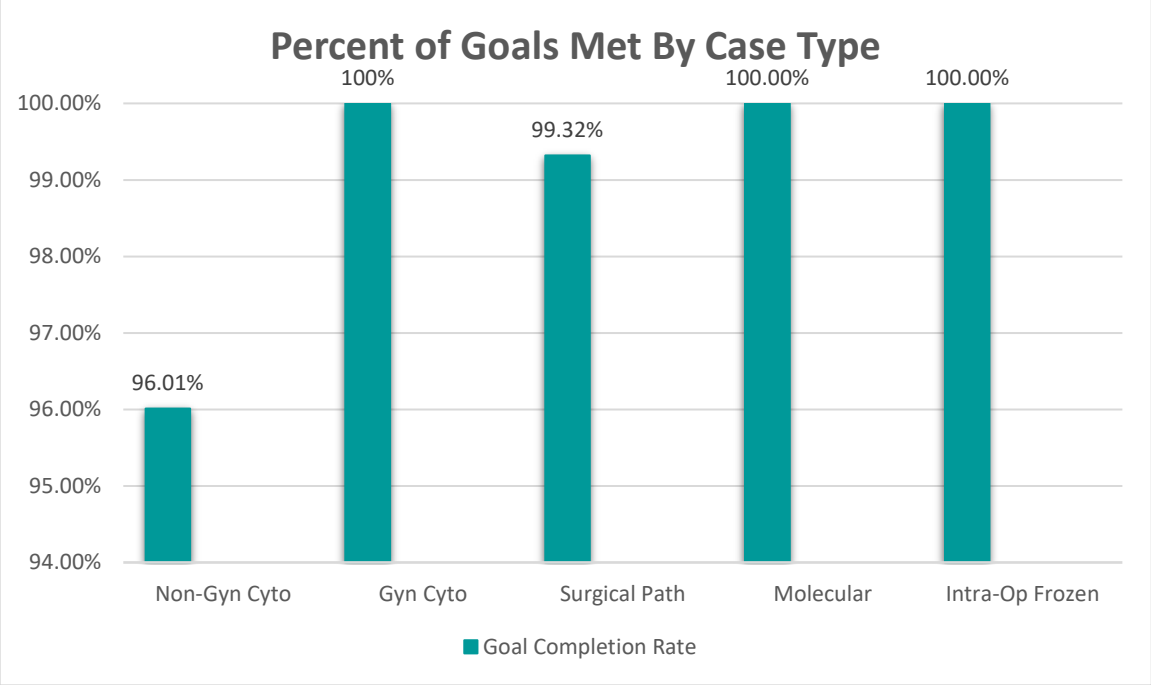
Associates in Pathology Quarterly Newsletter

7/13/2023 Volume 2, Quarter 2



Quarter 2 In Review

At Associates in Pathology, one of our main points of focus is case turnaround time (TAT). TAT for pathology specimens is an indicator of efficiency. TAT affects coordination of patient care, which in turn impacts satisfaction of both physicians and patients. We handle a variety of case types, each with their own TAT guidelines. Non-Gynecologic Cytology, FNAs, and Surgical Pathology cases have a goal of 90% signed out within 2 working days, Molecular cases are within 3 working days, and Gynecologic Cytology (Pap Smears) are within 7 working days.

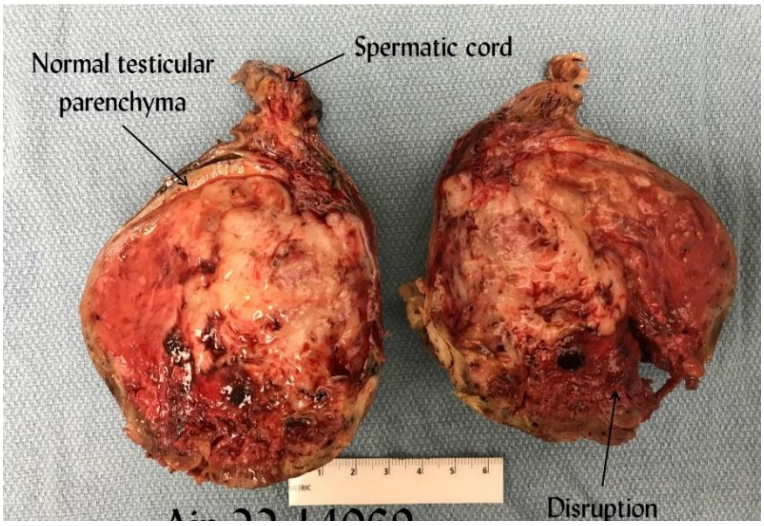
Frozen section analysis is an essential tool utilized during surgery by offering the surgeon a rapid diagnosis; therefore frozen section TAT has direct impact on patient's therapy and safety during/after surgery. With respect to our Intraoperative Single Frozen Sections, we strive to have a call back to surgeons in 20 minutes or less.

The chart above reviews AIP's TAT for 2023 Quarter 2.

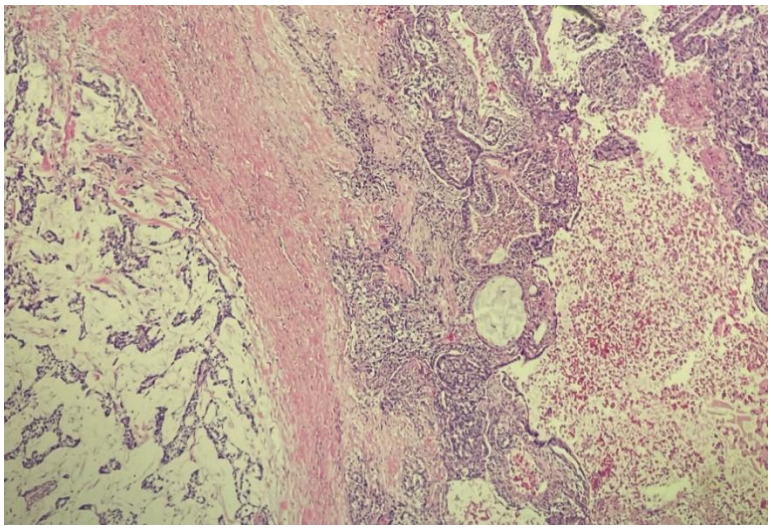
INTERESTING CASE OF THE QUARTER:
NONSEMINOMATOUS GERM CELL TUMOR OF THE TESTICLE (NSGCT): YOLK SAC TUMOR

- Received to AIP laboratory is a 250 gr orchiectomy specimen
  - Testicle-8.5 x 8.5 x 6.5 cm
  - Spermatic Cord- 4 cm long x 1.5 cm in diameter
- Bivalving reveals an 8.5 x 8.4 x 5.8 cm white-pink mass involving the majority of the testicle
  - 60% necrotic
  - 20-30% hemorrhagic
- Epididymis involved by tumor
- Tunica albuginea involved and mass perforates tunica vaginalis (mesothelial layer)
- Tumor cells stained positive for AFP, cytokeratin, Oscar and CD117
  - Negative for CD30
- Facts
  - Yolk sac tumors are a subgroup of NSGCT
  - Most common testicular malignancy in males 3 years and younger
  - Grow in glandular, papillary, or micro-cystic pattern
  - Tumor cells often make alpha-fetoprotein

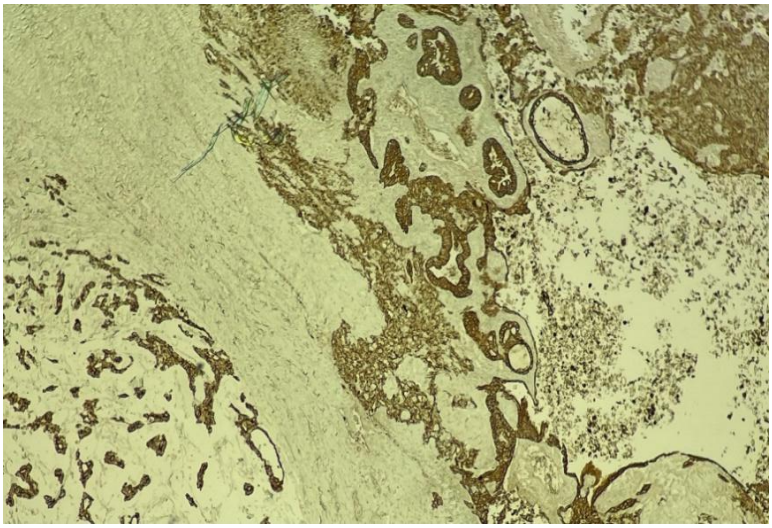
A: Photograph of bisected testicle



B: H&E of non-seminomatous germ cell tumor.



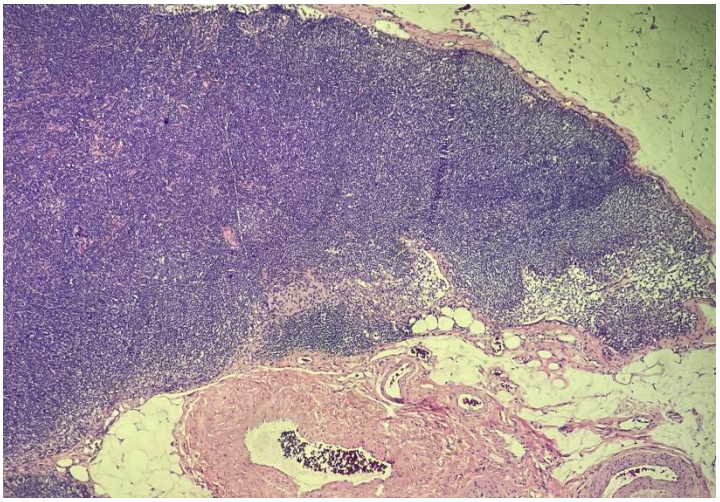
C: Cytokeratin immunohistochemical stain of the same tumor highlighting the epithelial components of the non-seminomatous germ cell tumor, aiding in accurate diagnosis.



INTERESTING STAIN OF THE QUARTER: SOX-10 (SP267) RABBIT MONOCLONAL PRIMARY ANTIBODY

- Detects SOX-10 protein in formalin-fixed, paraffin-embedded tissue
- SOX-10 protein is widely expressed in normal human tissues including melanocytes and breast tissue
- Also an important marker in malignant tumors such as melanoma, breast carcinoma, gliomas, and benign tumors such as schwannomas
- Anti-SOX-10 is sensitive for conventional, spindled, and desmoplastic melanoma
    - Used to detect metastatic melanoma and nodal capsular nevus in sentinel lymph nodes

A: H&E of sentinel lymph node showing a difficult to identify focus of metastatic melanoma.



B: SOX-10 immunohistochemical stain of the same focus highlighting the small nest of metastatic melanoma, demonstrating the improved sensitivity for detecting small metastatic lesions.