

## **COMPARISON OF THYROID CANCERS DETECTED INCIDENTALLY VS BY ULTRASOUND SCREENING IN FAMILIAL ADENOMATOUS POLYPOSIS PATIENTS**

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**Background/Purpose:** Thyroid cancer (TC) is an extracolonic manifestation of familial adenomatous polyposis (FAP) syndrome. It occurs 5x more frequently than the general population, but no guidelines for surveillance exist. This study compared TC in patients diagnosed by prospective screening versus those detected incidentally to determine if screening is appropriate.

**Methods:** Since 2008, all FAP patients undergo screening thyroid ultrasound at their yearly gastrointestinal follow-up. Non-screen-detected cases (NSD) were identified from our FAP registry.

**Results:** 15 screen-detected cases (SD) and 18 NSD were found. More NSD presented with palpable mass on clinical exam (32% versus 13% SD). All but one patient in this study had papillary TC (one had medullary); some were the cribriform-morular variant (6% NSD, 36% SD). Both groups showed predominantly bilateral disease (SD 64%, NSD 57%), but mean primary tumor size was smaller in SD than NSD (1.1cm versus 2.4cm, p=0.04). More NSD cases required radiation (72% versus 60% SD) and LN dissections (28% versus 20% SD). All except one NSD patient had stage I cancer (due to age <45); 4 SD patients were stage II or higher. 17% of NSD experienced complications, two cases developed recurrence, and one died in 83mo mean follow-up. Comparatively, no SD cases experienced morbidity, mortality, or recurrence in 17mo mean follow-up.

**Discussion & Conclusion:** TC screening in FAP patients diagnoses smaller-sized cancers that undergo less radical therapy with fewer complications. Surveillance for extracolonic manifestations becomes increasingly important due to increasing FAP life expectancy. Thyroid ultrasound may warrant implementation as an annual component of FAP management.