Clinical THYROIDOLOGY



You Do Not Have to Wait Three Months to Repeat the FNAB When It Is Nondiagnostic or Insufficient

Singh RS, Wang HH. Timing of repeat thyroid fine-needle aspiration in the management of thyroid nodules. Acta Cytol 2011;55:544-8. Epub December 9, 2011.

Background

When the results of a thyroid fine-needle aspiration biopsy (FNAB) are reported as unsatisfactory or nondiagnostic, it is recommended that a repeat biopsy be performed. The Bethesda system recommends that this be done no sooner than 3 months after the initial aspiration because reparative and reactive changes from the FNAB could lead to false positive interpretations (1). The purpose of the present study was to determine whether this 3-month interval is necessary in order to obtain accurate results on a repeat FNAB.

Methods

Thyroid FNABs performed at the Beth Israel Deaconess Medical Center between January 2006 and December 2008 were reviewed; 307 patients had more than one FNAB of the same lesion. The initial specimen was nondiagnostic in 138 and suboptimal in 108 patients. The repeat FNAB was evaluated and compared with regard to the initial diagnosis and the timing for doing the repeat FNAB.

Results

Sixty-three percent of the patients had the repeat FNAB less than 3 months after the initial one. The percentage of nondiagnostic repeat FNABs done less

than 3 months and those done more than 3 months after the initial FNAB was 17% in both cases. Overall, 53% of the repeat FNABs yielded an adequate diagnostic specimen. Of the repeats, 52% and 54% were adequate in those done less than 3 months and those done more than 3 months after the initial FNA, respectively. Of the 138 initial nondiagnostic specimens, 24% were nondiagnostic on repeat FNAB, 31% were suboptimal, and 45% were adequate. Of the 108 initial suboptimal specimens, 11% were nondiagnostic on the repeat, 23% were suboptimal, and 66% were adequate. For suboptimal specimens on repeat FNAB, the percentage was 28% for aspirations done less 3 months after the initial FNAB and 24% for those done more than 3 months later.

Eighty-one of the 307 patients had a subsequent thyroidectomy after the repeat FNAB. Based on benign pathology, 16% of the repeat FNABs were considered false positive when the repeat FNAB was performed less than 3 months after the initial FNAB and 12% were false positive when the repeat FNAB was done more than 3 months later.

Conclusions

The diagnostic yield and accuracy of repeat FNAB is independent of the time interval between procedures but may be related to the original FNAB diagnosis.

ANALYSIS AND COMMENTARY • • • • •

When the initial diagnosis indicates that a repeat FNAB is indicated because of an insufficient or nondiagnostic result, the data of this retrospective study show that it is not necessary to wait 3 months or longer to perform a repeat FNAB in order to avoid a false positive result. Unfortunately, the data also show that repeat FNAB is likely to yield a nondiagnostic or suboptimal result in about half of the cases that had these findings on the initial specimen. This is consistent with my personal experience. Some of the nodules seem reluctant to provide good material, no matter *continued on next page*

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who does the FNA. In a Korean study of 4077 FNAB, 16% yielded inadequate samples (2). The factors predisposing to inadequate samples were cystic nodules, macrocalcifications, and operator inexperience. In the current study, there was no analysis based on the experience of the operator or the ultrasound characteristics of the nodule. Nevertheless, the data indicate that first nondiagnostic FNABs predispose to second nondiagnostic biopsies. Although this is disappointing, it gives reassurance that the fault may lie within the nodule rather than the operator.

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