Utility of Routine Pathologic Specimens in Ganglion Cyst Excisions
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Introduction
Increasing attention is being placed on cost-benefit analyses across all specialties as healthcare costs continue to rise. One area of investigation has been the utility of pathologic examination of specimens from routine procedures with suspected non-malignant pathology. Several studies have previously questioned established guidelines for sending routine pathology in other fields, but no studies have examined their utility in routine hand surgery. We assessed the utility of routine pathologic analysis for one of the most commonly performed procedures in hand surgery, ganglion cyst excision.

Methods
A retrospective cohort study was performed at our institution with IRB approval. Billing records were searched for CPT code 25111-25112 (Ganglion Cyst Excision) over a 5-year period. All identified records were then searched for associated pathology charges, pre-operative diagnoses and procedural diagnoses. Pathology reports were then reviewed for final surgical diagnoses. Lastly, all associated pathology charges were obtained from our institutions billing department.

Results
A total of 407 patients underwent ganglion cyst excision at our institution between 2015-2019 by seven fellowship-trained hand surgeons. Of those, 318 (78.1%) had specimens sent for pathologic review. Thirty-two (10.1%) had non-ganglion cyst diagnoses pre-operatively. All 32 charts were reviewed and 31 of the 32 records indicated “high suspicion” for ganglion cyst pre-operatively with the diagnosis confirmed intra-operatively. One patient had abnormal pathology (0.3% of specimens), which was identified pre-operatively as a “cystic vascular malformation” on imaging. All reviewed specimens were associated with a “Level 3 Surgical Pathology” and “Tissue Exam Level 3” billing code, corresponding to a billing charge of $258.

Discussion
Current national guidelines for pathologic review of intra-operative specimens come from recommendations proposed in 1996 by the College of American Pathologists and do not take into consideration routine benign pathologies.

Our findings would suggest that routine pathology specimens are not indicated in cases where surgeons have a high clinical suspicion for ganglion cyst, and pathologic review should be reserved for cases with atypical findings.