Universal Measures of Support Are Needed: A Cross-Sectional Study of Health Literacy in Dupuytren’s Patients

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PURPOSE: Health literacy (HL) represents the degree to which patients can understand and act upon health information. An association between limited HL and poor health status, and all-cause mortality only partially illustrates the profound impact of HL on surgical patients. Confronted with a disease that is chronic in nature, associated with frequent recurrences, and has numerous treatment options, Dupuytren’s patients’ understanding of medical information becomes crucial. Our aims were 1) to determine the prevalence of limited HL in Dupuytren’s patients and 2) to identify independent predictors of limited HL.

METHODS: This cross-sectional study was performed in a tertiary care center. Patients with a clinical diagnosis of Dupuytren’s and self-reported fluency in English were included. The Newest Vital Sign (NVS), a rapid, validated, and reliable screening tool previously used in the hand surgery literature, was selected to measure HL. Limited HL was defined as a score of ≤ 3 out of 6. An exploratory multivariable logistic regression model was used to identify possible predictors.

RESULTS: A total of 185 patients met eligibility criteria and from those, 44% (n=82) had limited HL. Univariate analyses showed that patients with limited HL were more likely to be older (p=0.006), have a maternal language other than English (p=0.003), and have less education (p=0.002). Multivariable regression analysis revealed that being in the lower three income quintiles had a nearly 5-fold increase in the odds of having limited HL. Having immigrated increased the odds of limited HL by a factor of 3.6. Age, maternal language, education, comorbidities and employment were not independent predictors of limited HL.

CONCLUSION: Our study reveals a high prevalence of limited HL (44%) amongst Dupuytren’s patient. It is clear that universal measure of support would be of high value when communicating and caring for all Dupuytren’s patients and potentially in hand surgery and beyond.

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Correlation between Stenosing Tenosynovitis and Dupuytren’s Contracture in the Hand

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BACKGROUND: Stenosing tenosynovitis and Dupuytren’s contracture are common pathology encountered in hand surgery. In stenosing tenosynovitis (i.e trigger finger), inflammation leads to trapping of the flexor tendon, while in Dupuytren’s contracture pathologic proliferation and thickening of the palmar fascia leads to soft tissue contractures. Most commonly each diagnosis exists as a single form of pathology. However, in a subset of patients, there is a spectrum of disease with each diagnosis contributing to hand dysfunction. The purpose of this study is to examine the association between these two common pathologies in the hand.

METHODS: A retrospective chart review was performed to include all patients seen by a single surgeon between
2014 to 2017 with the diagnosis of either trigger finger or Dupuytren’s contracture. Patients with systemic inflammatory diseases such as rheumatoid arthritis, lupus, etc. were excluded. Patients’ demographics, medical history, social and surgical histories was recorded. A univariate and multivariate analysis was then conducted.

RESULTS: A cohort of 238 patients was identified. 192 patients were diagnosed with trigger finger. 89 patients were diagnosed with Dupuytren’s contracture. 43 patients carried both diagnoses. Median age was 63.9 (56.0 – 72.0). 50.4% were male. 66.8% had a history of alcohol intake. 52.9% were former or current smokers. 23.9% had diabetes. 31.1% had occupations requiring manual labor. Trigger finger (p<0.0001), gender (p=0.001) and age (p=0.001) were significantly associated with the development of Dupuytren’s contracture in the univariate analysis. Dupuytren’s contracture (p<0.0001) and gender (p=0.001) were significantly associated with the development of trigger finger in the univariate analysis. Diabetes, manual labor, use of alcohol and tobacco were not found to be significant. In the multivariate model, age was significantly associated with Dupuytren’s contracture [OR 1.047, (95% CI: 1.016, 1.079)].

CONCLUSION: Dupuytren’s contracture and stenosing flexor tenosynovitis remain common diagnoses in the upper extremity. Historically, clear predisposing factors have been identified yet little has been written regarding the coexistence of each condition. Based on this study, there is a significant association between stenosing tenosynovitis and Dupuytren’s contracture identified in our patient cohort. While there is a common association, it remains unclear whether one diagnosis predisposes to the other. In our experience, there is a spectrum of disease with a subset of trigger finger patients who develop thickening of their overlying palmar fascia. The treating physician should have a high index of suspicion, as this cohort may be predisposed to progression of Dupuytren’s contracture following A1 pulley release. While a clear association is identified in this study, more data is required before further conclusions can be drawn regarding a correlation between these disease processes.

The Prevalence and Epidemiology of A0 Trigger Finger: A Novel Characterization

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PURPOSE: Though trigger finger is traditionally associated with A1 pulley constriction, the A0 pulley, customarily known as the palmar aponeurosis, has been observed clinically to be responsible for trigger finger pathology. Previous cadaver studies have biomechanically implicated the A0 pulley in trigger finger, if not more so than the A1 pulley. This study attempts to outline the clinical prevalence and patient factors related to A0 pulley trigger finger in surgical patients.

METHODS: This was a prospective IRB approved randomized clinical trial. Patient demographics, medical history, and trigger finger history (i.e. not triggering, triggering, locked in flexion, incomplete flexion) were documented prior to trigger finger release. Intra-operatively, a coin toss was used to randomize initial release of either the A0 or A1 pulley. Following release, the patient was asked to flex and extend the fingers under careful examination and documentation by the surgeon. The remaining pulley was then released and clinical trigger status was recorded. The A0 pulley was deemed responsible if the initial release of A1 failed, but subsequent release of A0 successfully resolved triggering. The A0 pulley was deemed at least partially involved if the initial A0 release completely or incompletely resolved the trigger status of the patient. Statistical analysis was performed with Chi square and multivariate regressions.

RESULTS: To date, twenty-two fingers belonging to fourteen patients (11 (79%) right handed, 3 (21%) left handed; average age 56 yrs; 9 male (64%) and 5 female (36%)) have been released. Of the 22 fingers, 2 (9%) resolved after subsequent A0 release following a failed initial A1 release. Nine (41 %) showed resolution of symptoms following the initial release of A0, and 1 (5%) showed incomplete resolution following initial A1 release and complete resolution following the subsequent A0 release. Neither initial A1 or A0 release was significantly associated with complete release, incomplete release, or complete release failure. Multivariate regression revealed that diabetes status(p<0.001), occupation requiring manual labor(p=0.002), presence of past hand procedures(p=0.003), increased pain level at baseline(p=0.020), and absence of a palpable nodule(p=0.009) predicted incomplete resolution at first release. Incomplete release was independent of A1 or A0 release, age, sex, finger, smoking status, or steroid injections. We aim to recruit up to 50 fingers by study completion.