Dupuytren’s Disease: A 10-Year Review of Treatment Evolution and Utilization Trends

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INTRODUCTION: Dupuytren's disease is a common condition of the palmar and digital fascia leading to progressive contracture and hand dysfunction affecting a large subset of the population. When non-operative treatments fail to provide significant improvement in cosmesis and hand function, there are a variety of procedures that can be considered including needle aponeurotomy, fasciotomy, fasciectomy, and collagenase injections. The purpose of this study was to analyze trends in the incidence of Dupuytren's disease and trends in treatment modalities from 2015 to 2024.

METHODS: The TriNetX research database was queried from 2015-2024 for patients with Dupuytren's and its treatments. Data was collected using ICD-10 and CPT codes. Statistical analysis was performed to determine trends in incidence of Dupuytren's disease and treatment modalities from 2015 to 2024.

RESULTS: There were 113,091 patients diagnosed with Dupuytren's and 25,570 procedures were performed. Incidence rates for intervention of Dupuytren's disease increased from 20.1% to 22.6%. All treatment methods increased overall. The percent utilization of percutaneous aponeurotomy increased from 5.9% to 9.3% ($p<0.01$), collagenase injections decreased from 30.8% to 22.9% ($p<0.01$), open palmar fasciectomy decreased from 10.7 to 8.8% ($p=0.04$), open palmar fasciectomy with digital release increased from 33.3 to 38.7% ($p=0.02$). There was no significant change in utilization with open fasciotomy or open fasciectomy with multiple digital releases. Average annual incidence PNA was 1.9%, CCH injection was 5.8%, open fasciotomy was 1.2%, palmar fasciectomy was 2.0%, fasciectomy with digital release was 8.3%, fasciectomy with multiple digital releases was 3.4%. Fasciectomy was the most used first-line treatment. Percutaneous aponeurotomy required subsequent procedures 15% of the time, followed by fasciotomy (10.8%) collagenase injections (10%), and fasciectomy (4%).

DISCUSSION AND CONCLUSION: Over the last 10 years, all interventions for Dupuytren's disease have increased. However, the utilization rate of CCH injections has since declined with concurrent increased utilization of open fasciectomies.