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Title: Current trends in the surgical management of Dupuytren's disease in Europe: an analysis of patient charts

Abstract: Introduction. Dupuytren's disease (DD) is a fibroproliferative hand condition that causes progressive digital flexion contracture. DD typically affects older men of northern European descent; prevalence estimates range from <1% to >50% in different populations. Intervention for Dupuytren's contracture (DC), when required, usually involves surgery.

Methods. In this study, conducted in 12 European countries (Czech Republic, Denmark, Finland, France, Germany, Hungary, Italy, Netherlands, Poland, Spain, Sweden, and United Kingdom), randomly selected orthopedic/hand and plastic surgeons with >3 and <30 years' experience reviewed the medical charts of 5 consecutive patients they treated for DC in 2008. Information regarding disease characteristics and type of surgical procedures performed was extracted from patient charts using a standardized form. Descriptive statistics are reported.

Results. In total, 3357 patient charts were reviewed, with numbers per country ranging from 90 (Sweden) to 456 (France). In 52% of cases, DD was diagnosed by a general practitioner (GP). Of the patients studied, 81% were men (mean age 62 years; standard deviation [SD], 10.3). DD limited function in leisure (57% of patients) and work (55%) activities. At the time of the procedure, 39% of patients were at Tubiana Stage I (0-45° total flexion) and 34% were at Stage II (46-90°). Needle aponeurotomy (NA) was performed in 11%, fasciotomy in 16%, fasciectomy in 71%, and dermofasciectomy (DF) in 7% of patients. More invasive procedures were performed in patients with more severe disease: e.g., 76% of NA's were performed in patients with nodules only or Stage I disease, whereas 82% of DFs were performed for Stage II or greater disease. One finger was operated in 42%, 2 fingers in 42%, and ≥3 fingers in 16% of procedures. Procedures involved MCP joints in 82%, PIP joints in 66%, and DIP joints in 19% of fingers operated. The mean (SD) number of joints treated was 2.9 (2.0). Rate of hospitalization varied by procedure: 14% of NA's, 38% of fasciotomies, 50% of fasciectomies, and 54% of DFs were performed as inpatient procedures. The rate of reported complications during the procedure was 4% overall and 11% in patients undergoing DF (6% of whom experienced nerve injury). The most common post-operative complications reported were hematoma (8% of patients), wound healing complications (6%), and pain (6%). No post-operative complications were reported in 77% of patients.

Conclusions. This study is the first to date to collect, quantify, and describe information on the surgical management of thousands of Dupuytren's patients across Europe. Fasciectomy was the most common surgical procedure performed by orthopedic, hand, and plastic surgeons for European patients with DD, and more invasive procedures, often requiring hospitalization, were performed in patients with more severe disease.

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