

Dupuytren's Contracture: A Cost and Efficiency Analysis of Two Common Therapeutic Interventions

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Abstract:

Background: Therapeutic interventions for Dupuytren's contracture include limited fasciectomy (LF) and percutaneous needle fasciotomy (PNF). Both interventions are similarly efficacious.¹⁻³ Our goal was to look at the cost and efficiency of performing LF in the OR versus PNF in the clinic.

Methods: We performed a cost analysis comparing LFs performed in the OR to PNFs performed in clinic at our healthcare center. We calculated net revenues, profit margins, and performed an efficiency analysis for each intervention. The efficiency analysis used the opportunity cost method.⁴

Results: LF in the operating room was costlier than PNF in the clinic. Total cost of LF in the OR was more than ten times the cost of PNF in the clinic (\$7,615 vs. \$643). LF incurred a net loss of \$1,547/case, while clinic-based PNF secured a net profit of \$1,812/case. Portal time and surgical cut time allotted for LF was 140 minutes and 108 minutes, respectively. Block time allowed for PNF was 30 minutes. To value the efficiency of LF compared to PNF, we used the profit margin of PNF (\$1,812) and divided it by the 30 minutes taken to perform the procedure. This produced an opportunity cost multiplier of \$60/min. We multiplied it by the 110 minutes and 78 minutes saved when performing PNF compared to the portal time and surgical time for LF, respectively. This gave us respective opportunity costs of \$6,600 and \$4,680 and overall true cost values of \$14,215 (portal time) and \$12,295 (surgical cut time) when choosing to perform LF in the OR over PNF in the clinic.

Conclusion: PNF performed in the clinic is less costly, more profitable, and more efficient than LF performed in the OR. The hand surgeon should give strong consideration to clinic-based PNF before LF when both therapeutic interventions are an option.

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