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ALTERATIONS OF UNTREATED LYMPHEDEMA AND ITS GRADES OVER TIME

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ABSTRACT

Lymphedema is assumed to increase in amount and Grade with time. This work verifies that assumption, and may be helpful in persuading patients to undergo treatment and provides prognosis for likelihood of future disability. Before-treatment volumes of lymphedema/normal, Grades and durations are compared in 231 postmastectomy arm, 74 primary leg, and 103 secondary leg lymphedemas. These were the first, consecutive, unilateral lymphedemas to receive treatment at 25 clinics whose therapists we had trained.

Amounts of lymphedema increased with time, as did Grades. Arms increased more rapidly ($p=0.01$) than secondary or primary legs, which did not differ from each other (linear regressions: 1.8 (0.34), 0.63 (0.20) and 0.68 (0.38) %/year, respectively). The Grades of primary lymphedemas increased more slowly than those of either secondary arms ($p=0.02$) or secondary legs ($p=0.003$), which did not differ from each other (regressions: 0.010 (0.0048), 0.038 (0.0063) and 0.032 (0.0048) Grades/year, respectively). Increase of lymphedema with Grade was less for secondary legs than for primary legs ($p=0.004$) or arms ($p=0.009$), which did not differ significantly (regressions: 9.9 (3.5), 35 (8.7) and 25 (3.4) %/Grade, respectively). Thus, arms increased more rapidly in size than primary or secondary legs; primary legs remained in each Grade longer and got larger in them than did secondary legs. This relative lack of fibrosis in primary lymphedema permitted greater amounts of edema and accorded well with histopathological studies. The increases described with duration were not caused simply by patient aging. Whereas both duration and the age at the onset of lymphedema were significant for the arms, only duration was significant for the legs. Even in the arms duration was much more important than age.