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Title of Research *	The Risk Factors of Diabetic Foot Ulcer Recurrence
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Introduction & Purpose *	Diabetic foot ulcers (DFUs) are the major cause of amputation. Although DFUs are treatable, the recurrence rate is 57–81%. Risk factors for recurrence have not been fully identified, which leads to ineffective prediction and prevention. The purposes of this study were: 1) to identify risk factors associated with DFU recurrence, and 2) to determine the effect of pressure relief surgeries on risk factor correction.
Experimental Design *	This study employed a prospective, longitudinal design. Samples were recruited from an R01 DFU study. Subjects whose DFU healed while participating in the primary study were eligible for this study and were followed for one year. Data on age, BMI, HgbA1C, diabetes duration, activity level, primary ulcer location, foot deformity, peak plantar pressure (PPP), transcutaneous oxygen pressure (TcPO ₂), gait pattern, and ankle stiffness were retrieved from the primary study. Data on ulcer recurrence were collected via structured, monthly follow-up phone interviews. Data on pressure relief surgery were collected through chart review. Fisher's exact test and Mann-Whitney U test were used to examine differences between recurrence and non-recurrence groups.
Results *	Thirty-three subjects were enrolled. Twenty (60.6%) have experienced a DFU recurrence in a mean of 65.8 days (± 66.3). Analysis showed that individuals with recurrence have significantly higher dynamic PPP than those without recurrence ($p=.009$). Additionally, individuals without recurrence had significantly higher rates of pressure relief surgery (69.2%), aimed to decrease plantar stress, than those with recurrence (26.3%; $p=.029$). No other significant associations were found.
Conclusions *	The recurrence rate in our sample is similar to that reported in the literature. High dynamic plantar pressures are associated with DFU recurrence and pressure relief surgeries may decrease recurrence. These factors, along with others, need to be examined in a larger study to determine their independent contribution to DFU recurrence so they can be targeted for the effective prevention of DFU recurrence.

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