INTRODUCTION
Dermatofibrosarcoma protuberans (DFSP) is a rare cutaneous tumor of intermediate malignancy. DFSP accounts for 2-6% of all soft tissue sarcomas and is the most frequent skin sarcoma. It is a slow growing tumor derived from the fibroblast/myofibroblast lines of the dermis and underlying soft tissue.\(^1\)

DFSP has a non-distinctive clinical appearance, thus it is identified by its distinctive histopathologic appearance in conjunction with immunohistochemistry. DFSP grossly appears as a painless nodular or plaque-like lesion, most commonly on the trunk or proximal extremities, with 10-15% of cases occurring in the head and neck.\(^2,3\) DFSP is widely infiltrating in the periphery with tentacle-like projections extending many centimeters into what grossly appears to be normal tissue.\(^4,5\) Due to its peripheral infiltration, a locally invasive tumor with a low rate of metastasis becomes one with a high rate of local recurrence\(^6\).

The standard treatment for DFSP has long been surgical excision, in particular wide local excision (WLE). The rate of recurrence directly correlates with the success of the surgical therapy. WLE is not always possible in cases of DFSP. This is especially true in the head and neck region due to a want to preserve important structures and cosmetic function. Recurrence rates as high as 50-75% have been found in DFSP of the head and neck leading to a need to discover additional therapies.\(^6\)

We sought to describe the epidemiology and treatment methods of head and neck DFSP in the United States using the Surveillance, Epidemiology, and End Results (SEER) database.

MATERIALS & METHODS
Using data from the SEER database from 1973 to 2011, a retrospective analysis of all DFSP cases was conducted. Statistical comparisons were drawn between DFSP and DFSP specifically in the head and neck for epidemiologic factors and treatment regimens. As the SEER database encodes information on a tumor’s primary site, DFSP of the head and neck, including the scalp, can specifically be studied. Statistical analyses were performed using the SEER Stat statistical software. Survival analyses were conducted using the Kaplan-Meier method.

DISCUSSION
From 1973 to 2011, there were 7827 DFSP cases, with 1027 occurring within the head and neck. The SEER data indicated that while Caucasians constituted the majority of cases of DFSP when compared with African Americans (71% vs 18%), incidence rates per capita were higher in the African American population. Women had a slight predominance in DFSP overall (53.1%), while men were more affected within the head and neck region (56.3%, P < .05). Surgical resection (n = 7454, 95.2%) was the primary treatment for each grouping. Adjuvant radiation was used 2.4 times more often in the head and neck but was still utilized in only 8.7% of cases of head and neck DFSP. Survival was excellent for both treatment regimens, with >95% 5-year overall and disease-specific survival. Due to the high survival of DFSP, comparison of survival curves of the treatment arms of radiation and surgical excision was not performed. Recurrence risk of DFSP could not be performed using the SEER 18 database.

SUMMARY
DFSP in the head and neck most commonly occurs in Caucasian males according to the SEER database. Surgical resection, in particular wide surgical excision, remains the mainstay for primary treatment with adjuvant radiation being used 2.4 times more in the head and neck. Review of the literature suggests that radiation therapy may help decrease recurrence rates. Suit et al reported 3 preoperatively and 12 postoperatively radiated patients. Of these 15 patients, the 10-year local control rate was 84%\(^6,7\).

REFERENCES