

CONCLUSION

WITH THE RECENT AND CONTINUED RISE IN SOLAR PANEL PRODUCTION AND INSTALLATION, BURN CENTERS SHOULD EXPECT TO SEE AN INCREASE IN PATIENTS PRESENTING WITH ELECTRICAL BURNS ASSOCIATED WITH THESE PRODUCTS.

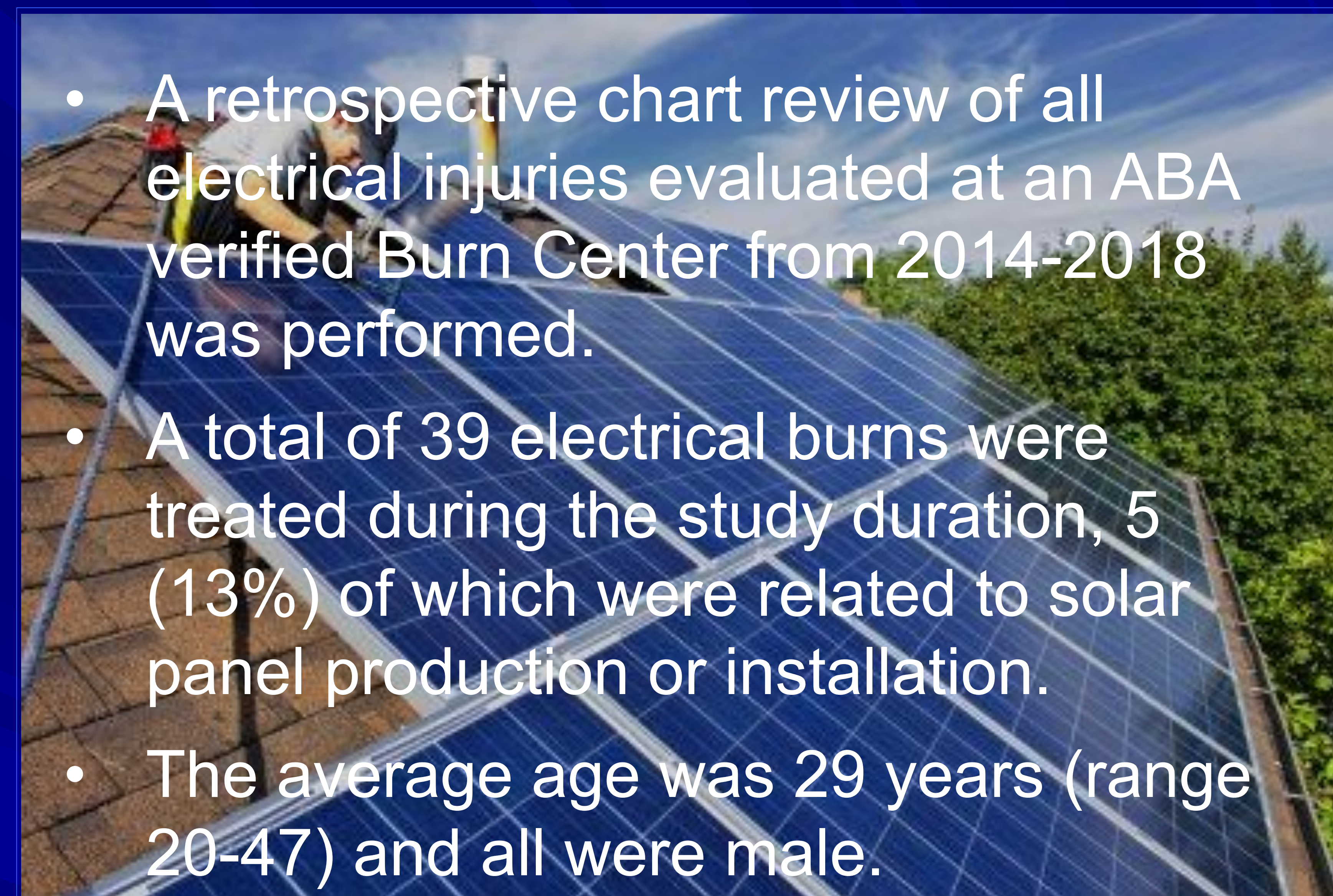
SIGNIFICANCE STATEMENT

Solar panels are associated with a number of potential injuries from manufacturing through installation. The aim of this study was to summarize our institutional experience with electrical injuries from solar panels.

RESULTS

- All patients had <5% TBSA.
- One patient had burns to the face, one patient had burns to the foot, two patients had burns to the hand/finger, and one patient had burns to the hands, abdomen, and thigh.
- Two patients were burned while working in a solar factory, two while installing solar panels, and one while clearing solar panels.
- One patient developed v-fib following his injury. He had a prolonged hospital stay of 74 days complicated by pneumonia, encephalitis, and acute kidney injury with rhabdomyolysis secondary to a compartment syndrome of the hand which required a fasciotomy.
- When excluding this outlier, the average length of stay was two days and no patient required ICU level care.
- One patient presented with a corneal abrasion and another required toe amputations, but no other significant complications were noted.
- All patients survived their injuries.

DATA SOURCE/POPULATION

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- A retrospective chart review of all electrical injuries evaluated at an ABA verified Burn Center from 2014-2018 was performed.
 - A total of 39 electrical burns were treated during the study duration, 5 (13%) of which were related to solar panel production or installation.
 - The average age was 29 years (range 20-47) and all were male.

LESSONS LEARNED

- Though we saw no mortalities in our cohort these injuries were associated with significant morbidities.
- Burn Center staff should be aware of this emerging pattern of injury and be prepared to care for these injuries.