MATERIALS AND METHODS: A list of fellowship programs was obtained from the website of American Society of Craniofacial Surgery (ASCFS). Faculty demographics and institution characteristics were obtained from official program websites. H-indices for each faculty member were calculated using the Scopus database (Elsevier, USA). Data was assessed using bivariate analysis (Kruskal-Wallis and Mann-Whitney tests) and multiple linear regression models to determine the relationship between independent variables and total publications, career H-index and 5-year H-index (H5-index) of each faculty.

RESULTS: A total of 102 faculty members from 29 craniofacial fellowship programs were identified to meet inclusion criteria. Faculty demographics reflected a median age of 48 (IQR 13), a predominantly male sample (88/102, 89.7%) and the rank of assistant professor being the most common among faculty members (41/102, 40.2%). Median career publications per faculty was 37 (IQR 52.5) and median H-index and H5-index were 10.0 (IQR 13.75) and 3.5 (IQR 3.25) respectively. Multivariate analysis based on the significant independent variables demonstrated that age, male gender, FACS membership, higher academic title and academic program affiliation with a ranked research medical school were significantly associated with higher H-indices.

CONCLUSIONS: Variables associated with seniority (age, years of practice after fellowship, and academic appointment) were positively correlated with the H-index. Given the increased use of bibliometrics in academic medicine, these results show that H-index is a viable tool which can be used to assess research quantitative and qualitative productivity among academic craniofacial surgeons.

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High Voltage Electrical Burn Injuries of Hand in Children: A Clinico-Aetiological Study and Role of a Doctor in Its Prevention

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INTRODUCTION: Electrical burn injuries are very devastating and are always a challenge for reconstruction and rehabilitation.1 Children are generally at high risk because of their natural curiosity to explore things.2,3 Once injured and amputated at this learning age, they are unable to attend school and fall behind their peers and ultimately affecting their capability to earn a livelihood.

OBJECTIVE: This study was undertaken to analyse the burden of high voltage electrical hand injuries, aetiological factors, pattern of injuries, to contemplate the various preventive measures and to discuss and promote the role of doctors especially hand surgeon in its prevention.

MATERIAL AND METHODS: The study included 83 children below the age of 14 years with high voltage electrical injuries admitted in the hospital from Jan 2010 to Dec 2014. Out of these, 75 patients had injury to their hand which resulted in partial or complete amputations (32+43). All children were evaluated for etiological factors, pattern of injuries, educational status of the child as well as parents and intervention done. A study specific 10 point questionnaire was prepared to gain insight into the etio-sociological parameters associated with these injuries. Simultaneously an awareness campaign educating the population at risk was initiated (with hand surgeon as the chief campaigner along with few treated patients to play as role model). This included outreach programs in areas from where there was high patient input as well as educating the family of the patient at the time of discharge and every follow up.

RESULTS: Most common cause was accidental contact with the overhead high voltage live wire. Other reasons were illegal connection with high tension wires and transformers, coming in contact with broken live wires in fields, kite flying and railway tract accidents. Most common age group affected was 10 to 14 years. In the last one year it was found out that those areas in which special camps were organized had a statistically significant drop in the incidence of these injuries.

CONCLUSIONS: The incidence of high voltage electrical injuries is higher among the uneducated & unsupervised children. This study emphasizes the role of doctor in prevention of these crippling catastrophic hand injuries by identifying and educating the population at risk and more importantly saving the hands of future.

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RECONSTRUCTIVE SESSION 1

A Prospective Randomized Controlled Trial of Autologous Fat Grafting for Pedal Fat Pad Atrophy

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INTRODUCTION: Pedal fat pad atrophy is associated with pain, decreased tissue thickness, and elevated foot pressures. To date, no objective studies have investigated the utility of injecting fat into the forefoot to treat this costly and debilitating form of lipoatrophy. We hypothesize that pedal fat grafting can reduce pain, improve function, increase tissue thickness, and decrease pedal pressures.

MATERIALS AND METHODS: A randomized, controlled trial was performed, assessing tissue thickness, pain, and foot pressures after fat grafting to the forefoot. Patients were randomized to receive either fat grafting or conservative management. Ultrasound-assessed tissue thickness, pedobarograph-assessed foot pressures, and the Manchester Foot Pain and Disability Index (MFPDI) were obtained at baseline, 6mo, and 12mo visits. 18 patients (4 Male, 14 Female) comprised the treatment group, and 12 patients (4 Male, 8 Female) comprised the control group.

RESULTS: Average age was 60±8.7 years for the treatment group and 65.3±8.5 for the control. Mean BMI was 26.8±4.7 and 25.6±6.1 in treatment and control groups respectively. 11 patients received bilateral injections with a mean volume of 4.8±0.8mL and 4.7±0.7mL in the right and left feet respectively. Mean follow-up time was 8.7±6.2 months for the treatment group and 13.8±4.2 months for controls (p=0.001). At 1 year, grafted subjects demonstrated improvements in foot function (p=0.022), pain (p=0.022), and work/leisure activities (p=0.021) with a significant increase in tissue thickness over the metatarsal heads (p<0.04) at 6mo but not at 12mo. However, controls experienced significant decreases in average metatarsal tissue thickness over the first 6mo (p<0.05), and in the thickness over the 3rd metatarsal at 12mo (p=0.036), with most of the worsening occurring between the 6mo and 12mo time point (p=0.023). Foot pressures did not decrease after grafting. However, controls experienced increasing left foot pressure (P=0.011). When comparing the groups at 1 year, controls had significantly greater foot pressures and forces than patients receiving fat grafting (p<0.05).

CONCLUSION: Despite decreasing tissue thickness over time, fat grafting for forefoot fat pad atrophy significantly improves pain and disability outcomes and prevents worsening foot forces and pressures. Pedal fat grafting is a safe, minimally invasive approach to treat fat pad atrophy with minimal downtime. Future analysis will reveal whether fat grafting has lasting efficacy.

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Subcutaneous Injection of SVF in Combination with HBOT Improves Viability of Unfavorably Designed Cutaneous Flaps

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INTRODUCTION: Soft tissue reconstruction is inherently complicated by ischemia and reperfusion injury. Efforts to minimize these deleterious effects include meticulous surgical design, minimizing the ischemic period and optimizing...