Epidemiology and causes of upper extremity amputations in the province of Québec

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BACKGROUND

The injury mechanism is one of the most important prognostic factors determining survival rate and functional outcome in replantation surgery of the upper extremity¹. However, injury causes are underreported in the literature.

OBJECTIVES

To study the epidemiology of upper extremity amputations referred to our provincial replantation hand center

METHODS

We conducted a retrospective analysis of all records of patients referred to our center for digital amputation or devascularization from January 2010 to January 2013. Further data were obtained through a validated questionnaire mailed to those patients. The gathered information included demographics and a narrative of the mechanism of injury including factors involved.

RESULTS

A total of 377 patients were referred during the period of 2010-2013. The referral rate was 1.175/100 000 person/year. 131 patients completed the questionnaire. The majority were male (85.4%), mostly in the 40-60 years-old age category (43.5%). 66.4% of the injuries occurred in the non-dominant hand, 66.3% involved one finger, with the thumb and index comprising 48.79% of the cases. They mostly worked an average of 30 hours/week (64.12%), though most injuries (61.8%) occurred at home. Power handtools or fixed powered machines accounted for 69.12% of the injuries. Most patients reported that guards were absent at the time of injury (80.3%). When the patients were asked what was according to them the reason of the injury, a clear pattern was noticed. For the table saw, working with small pieces was the most cited reason for guard retrieval (86.6%).

DISCUSSION/CONCLUSION

A closer examination of amputation causes shows a clear pattern. Unexpectedly, most events occurred at home.

• Further development in safeguards and a better population awareness is required in order to prevent further injuries.

REFERENCES