



Introduction

- Prior studies comparing scalds and contact burns rarely address the affect of burn etiology on burn depth
- It is commonly believed that scalds heal faster than similarly sized contact and flame burns
- As a result, expectant therapy is often preferred after scald injuries
- We compared the percentages of full-thickness burns based on burn etiology controlling for
 - burn size, location and patient age

Study Hypothesis

- The percentage of full thickness burns would be lower after scalds compared with contact and flame burns

Methodology

- We performed a retrospective chart review of a prospectively collected burn registry of all patients admitted to a regional burn center between 2000-2010
- Data collection included patient and burn characteristics including age, gender, body location, and burn etiology
- We compared the percentages of full thickness burns among scald, contact and flame burns using Chi-square tests
- Stepwise logistic regression was used to adjust for age, location, and burn size

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Results

- There were 1,038 patients, mean (SD) age was 29 (29), 75% were male
- Mean (SD) TBSA was 11 (13%), mean (SD) LOS was 10 (18) days

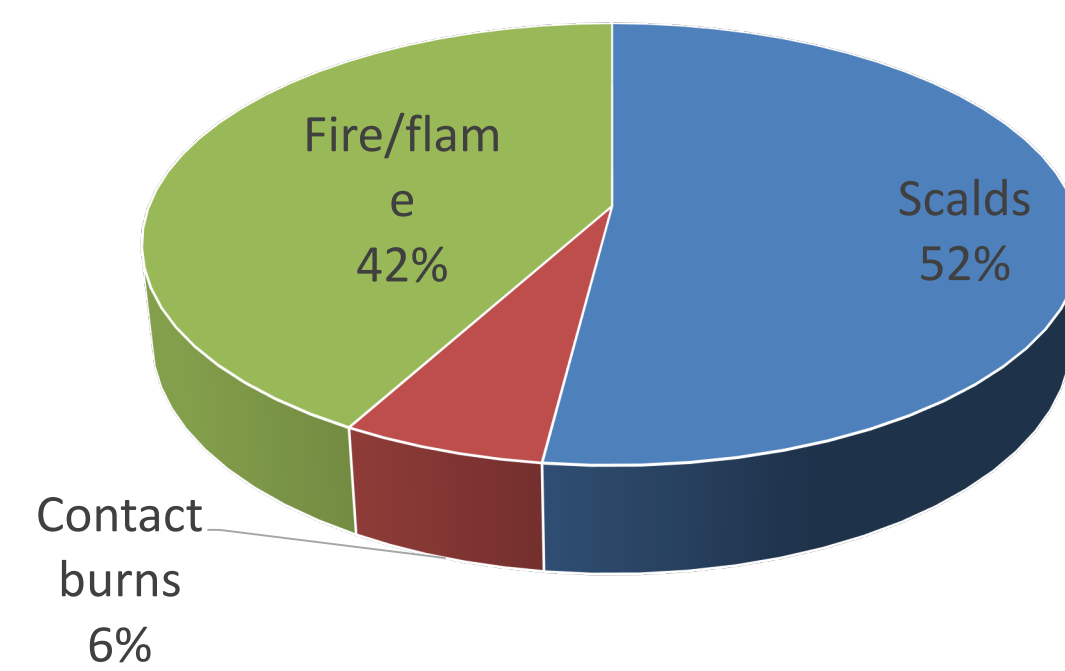


Figure 1. Burn etiology

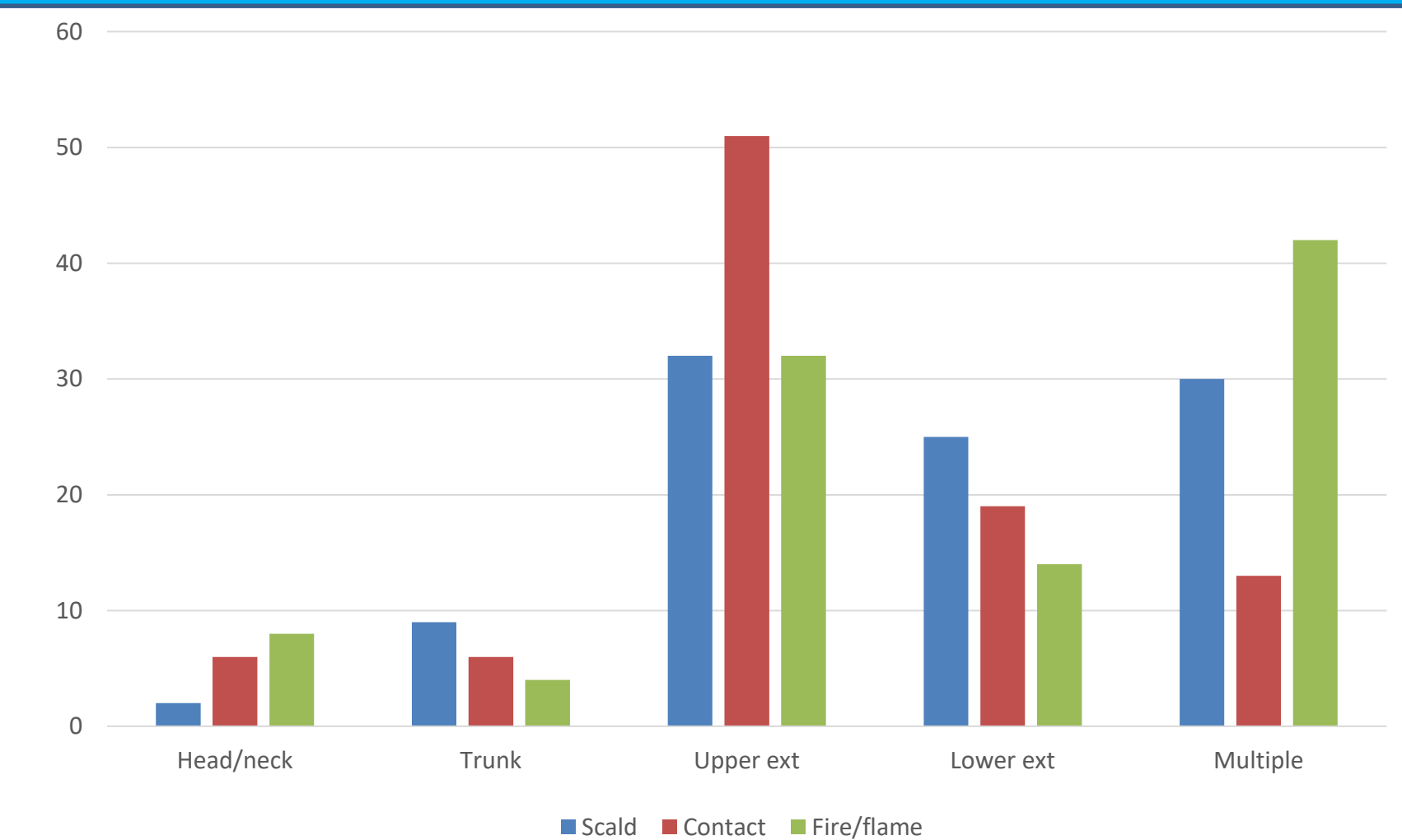


Figure 3. Burn location

Table 1. Demographics

Burn type	Mean age (SD)	% male	Mean % TBSA (SD)
Scald	26 (23)	47	3.6 (4.7)
Contact	25 (21)	58	2.0 (6.4)
Fire/flame	39 (19)	74	6.2 (8.1)
P value	<0.001	<0.001	<0.001

Table 2. Multivariate predictors of full thickness burns

	Odds ratio	95%CI
Burn type		
Contact	Reference	-
Fire/flame	0.76	0.43-1.35
Scald	0.43	0.25-0.73
TBSA	1.11	1.07-1.14
Age	1.002	1.012-1.031

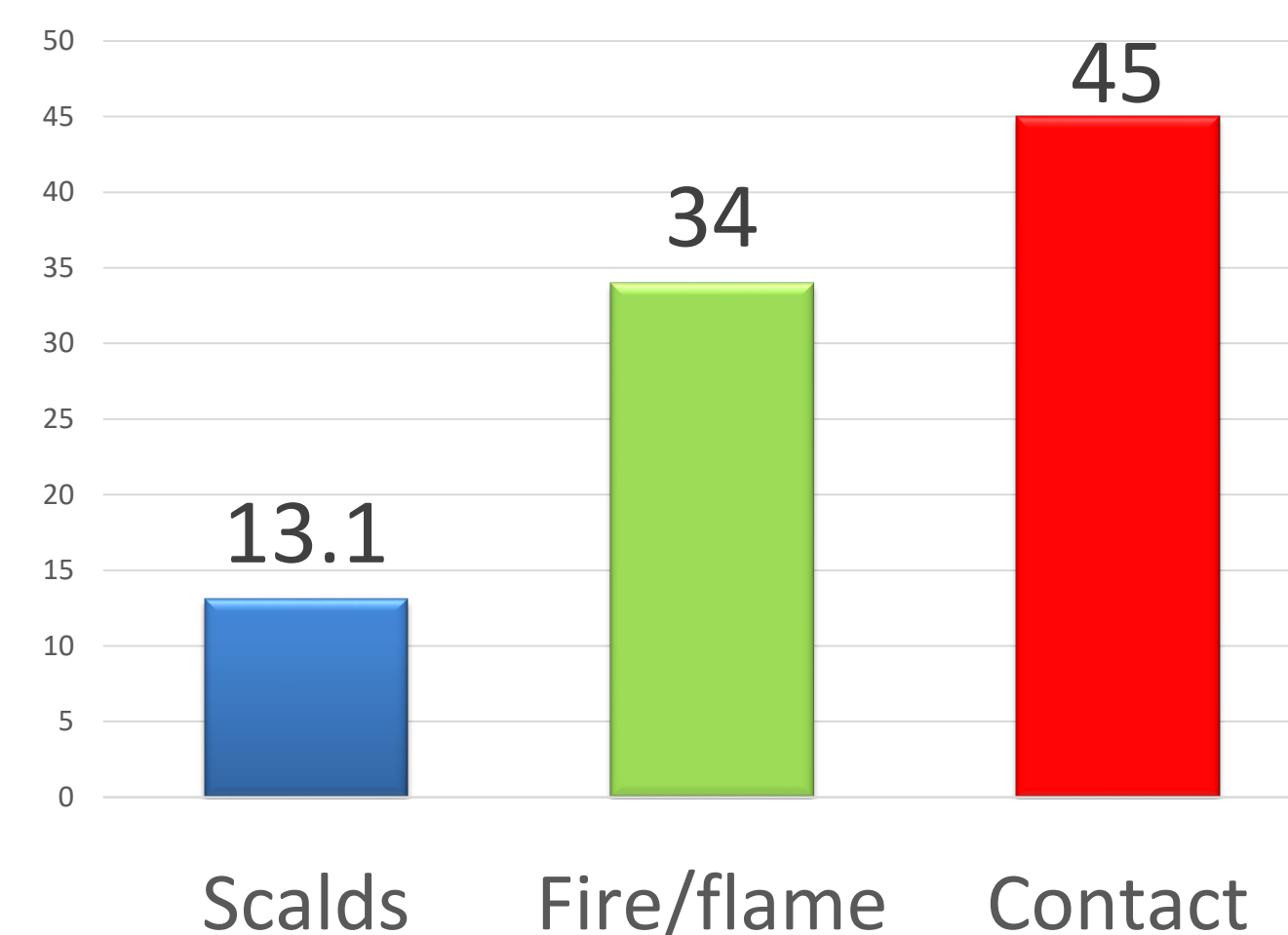


Figure 2. Percentage full thickness burns

Limitations

- Single center
- Retrospective design
- Small sample size

Conclusions

- Scald burns are significantly less likely to be full thickness than contact or fire/flame burns