

Gender-based differences in assessment and management of acute abdominal pain in the emergency department: A retrospective audit.

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Background

Previous research has identified gender-based differences in acute pain management in the emergency department [ED]. Gender bias against women has been shown to impact the assessment and treatment of pain. Some studies have shown that women wait longer for analgesic than men and are less likely to receive opioid analgesic. Limited recent research has been undertaken evaluating the impact of gender on the assessment and management of acute abdominal pain in the ED, indicating an important gap in evidence.

Aim

The aim of this study was to compare pharmacological management of acute abdominal pain in the ED by gender.

Method

A retrospective chart audit was conducted at one private metropolitan ED including adult patients (18–80 years) who presented with acute abdominal pain in 2019. Exclusion criteria included: pregnancy, repeat presentation within the study period, pain-free at initial medical review or documented refusal of analgesia, and oligo-analgesia. Comparisons by gender included: (1) analgesia type (e.g., opioid, non-opioid and combination opioid medications) and (2) time to analgesia (first and second). Bivariate analysis was undertaken using SPSS.

Results

There were 192 participants: 61 (31.6 %) men and 131 (67.9 %) women. Men were more likely to get combined opioid and non-opioid medication as first line analgesia (men: 26.2 % n = 16; women: 14.5 % n = 19, $p = .049$). Median time from ED presentation to analgesia was 80 min for men (IQR: 60) versus 94 min for women (IQR: 58), ($p = .119$). Women (25.2 % n = 33) were more likely to receive their first analgesic after 90 min from ED presentation compared to men (11.5 %, n = 7 $p = .029$). In addition, A significant difference was found in median wait times to second analgesic between men (median 30 minutes, IQR: 49) and women (median 94 minutes, IQR: 95), ($p = .032$).

Pain Severity	Men n (%)	Women n (%)	Total n (%)	p value
Pain Score prior to analgesic				
Pain score 1-5	21 (34.4)	38 (29.0)	59 (30.7)	0.358
Pain score 6-10	25 (41.0)	69 (52.7)	94 (49.0)	0.189
No pain score documented	11 (18.0)	20 (15.3)	31 (16.1)	0.552
First analgesic Given				
Opioid	19 (31.1)	46 (35.1)	65 (33.9)	0.550
Non-Opioid	18 (29.5)	48 (36.6)	66 (34.4)	0.316
Combined Opioid and Non-Opioid	16 (26.2)	19 (14.5)	35 (18.2)	0.049*
No Analgesic Given	8 (13.1)	18 (13.7)	26 (13.5)	0.906
ED Triage Time to Analgesic				
0-30 minutes	4 (6.6)	5 (3.8)	9 (4.7)	0.403
31-60 minutes	11 (18.0)	21 (16.0)	32 (16.7)	0.729
61-90 minutes	18 (29.5)	27 (20.6)	45 (23.4)	0.175
91-120 minutes	7 (11.5)	33 (25.2)	40 (20.8)	0.029*
>120 minutes	13 (21.3)	27 (20.6)	40 (20.8)	0.911

Table 2: Comparison of Pain Severity, Analgesic Type and Time to Administration by Gender
Note: p value obtained using chi square analysis. * indicates statistical significance
Some variables were missing and n=192 was not reached for all variables

Conclusion

These findings confirm gender differences in wait times to analgesia and pharmacological management of acute abdominal pain in the ED. Larger studies are required to further explore differences observed in this study.

Results

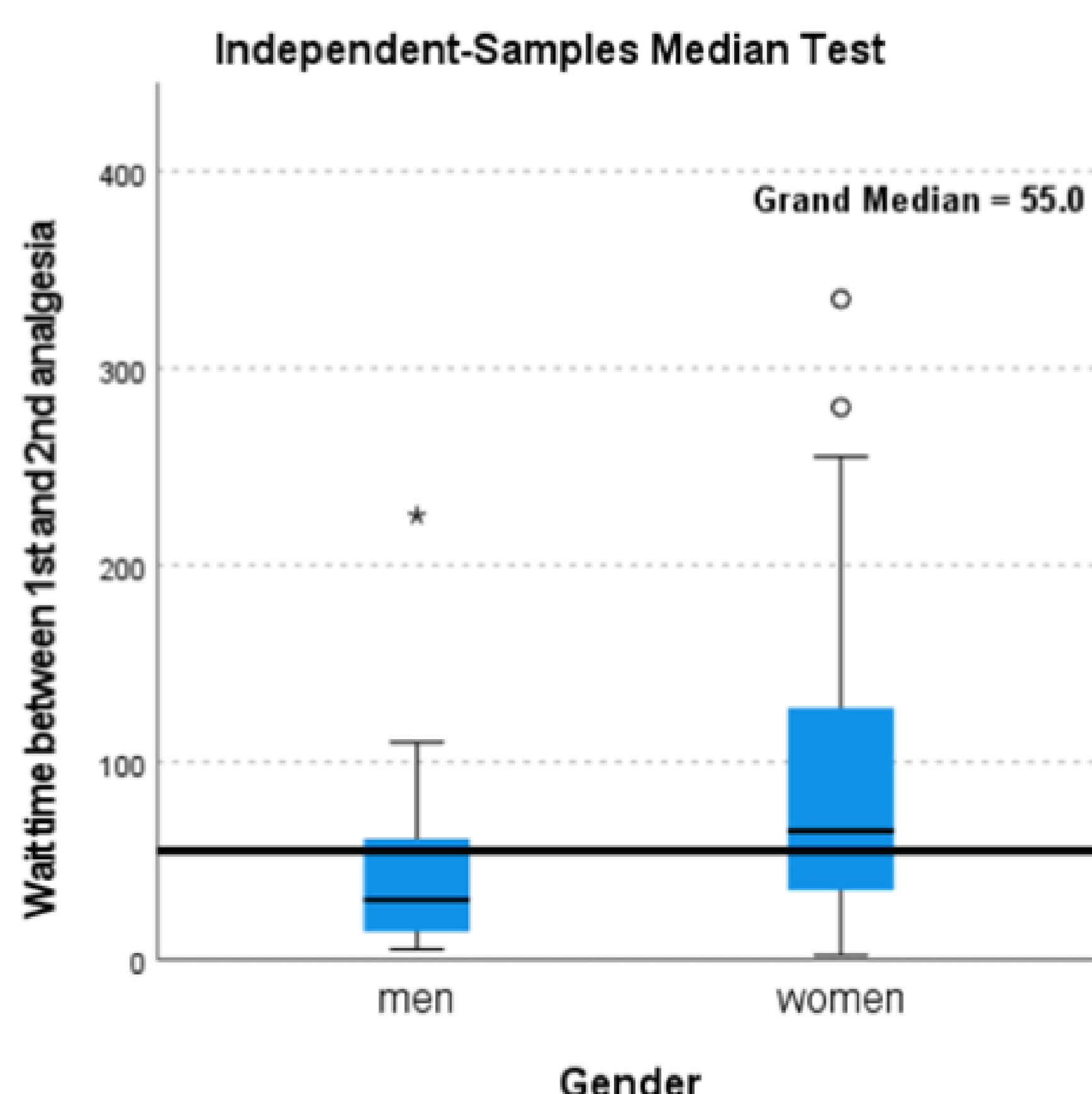


Figure 2. Median wait times between first and second analgesic compared by gender