

Time to Otolaryngologist Presentation After Bell's Palsy Onset

Vivek S. Annadata, BS¹; David W. Chou, MD²; Abdurrahman Al-Awady, BS³; Joshua D. Rosenberg, MD⁴; Mingyang L. Gray, MD, MPH⁴

1. Donald and Barbara Zucker School of Medicine at Hofstra/Northwell, Hempstead, NY, US
2. Division of Facial Plastic and Reconstructive Surgery, Department of Otolaryngology - Head and Neck Surgery, Emory University School of Medicine, Atlanta, GA
3. University of Miami Miller School of Medicine, Miami, FL, US
4. Division of Facial Plastic and Reconstructive Surgery, Department of Otolaryngology - Head and Neck Surgery, Icahn School of Medicine at Mount Sinai

BACKGROUND

- Disparities in access to healthcare following the onset of Bell's palsy can significantly impact patient outcomes.
- Timely evaluation, treatment, and diligently monitoring the sequelae of Bell's palsy are critical aspects of effective management.
- Previous research has noted the critical role of timely otolaryngologist presentation in achieving favorable outcomes following Bell's palsy.⁴
- This study investigates the interval between Bell's palsy onset and initial otolaryngologist presentation, in the context of patient age and race.

METHODS

Study Design

A retrospective review was performed of patients who presented to the Department of Otolaryngology – Head and Neck Surgery with an ICD-10 code of G51.0 between 2014 and 2023. Demographic data, medical history, and clinical notes were reviewed.

Inclusion & Exclusion Criteria

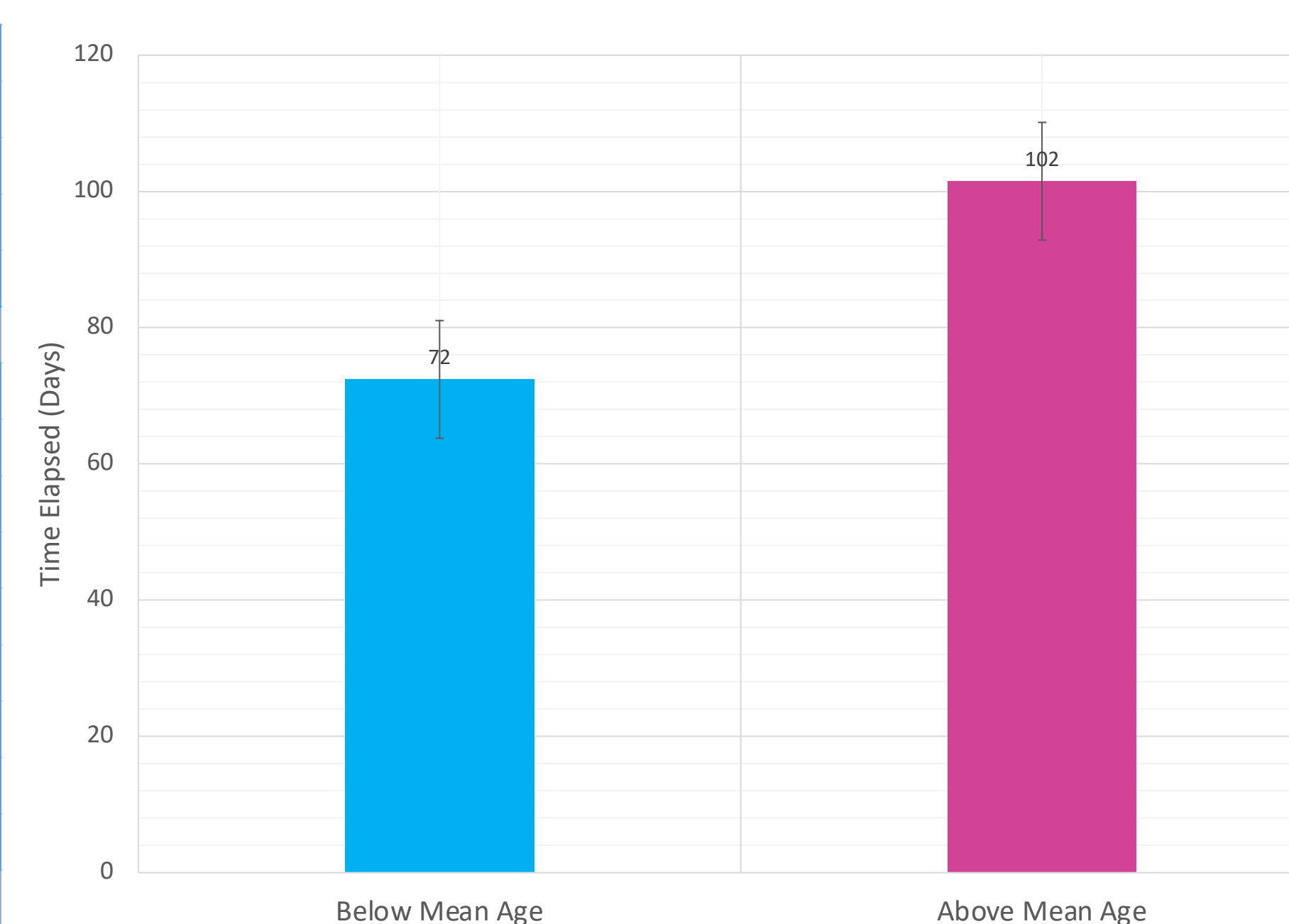
Patients were included if their diagnosis of Bell's palsy was confirmed by an otolaryngologist. Patients were excluded if they presented to an otolaryngologist 365 days or more after symptom onset and if they had non-idiopathic etiologies for facial paralysis - traumatic injury, iatrogenic disease, tumor resection, Ramsay-Hunt syndrome, and Lyme disease.

RESULTS

- 546 patients were diagnosed with facial paralysis between 2014 and 2023, with 234 (80 male, 154 female) identified with Bell's palsy.
- After applying inclusion criteria, a total of 119 patients (48 male, 71 female) were retained for analysis.
- The study population exhibited a mean age of 47 years (range 14 to 87 years).
- Patients younger than the mean age presented to an otolaryngologist on average 72 days after the onset of facial paralysis symptoms. Patients above the mean age presented on average 102 days after symptom onset (P=0.049).
- 52.7% of the cohort identified as White, 11.8% identified as Black or African American, and 35.4% were categorized under "Other" races.
- 27 patients of unknown race were excluded from analysis.
- White patients presented after an average 90 days post-symptom onset, Black and African American patients at around 95 days, and those categorized as "Other" presented after approximately 75 days (P=0.864).

	Total BP Patients	Below Average Age	Above Average Age	p-value
N	119	59	60	
Gender				
Male	48	29	19	
Female	71	30	41	
Age				
0 - 20	2	2	0	
20 - 40	42	42	0	
40 - 60	42	15	27	
60 - 90	33	0	33	
Average	48.9	35.1	62.6	
Race				0.864
White	49	27	22	
African-American	11	4	7	
Other	32	17	15	
Unknown	27	11	16	
Average Initial HB	4.0 ± 1.2	3.9 ± 1.1	4.1 ± 1.3	

Table 1. Demographics of the Bell's palsy cohort. Statistical tests were run to compare the distribution of Age and Race between patients below the mean age and patients above the mean age.



Graph 1. Bar chart representing the average amount of time elapsed between Bell's palsy onset and otolaryngologist presentation. Patients below mean age presented on average 72 days after symptom onset, while patients above mean age presented on average 102 days after symptom onset (P=0.049).

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DISCUSSION

Healthcare access is a complex issue influenced by a myriad of factors, among which age holds a significant place. Prior studies within the field of otolaryngology have shed light on a concerning trend – the growing elderly population in the United States faces an elevated risk of encountering barriers to healthcare access¹ – which is supported by our data. In addition, existing literature on Bell's palsy management notes the importance of timely presentation and treatment initiation after symptom onset to ensure proper facial nerve recovery.^{2,3}

The difference in elapsed time to presentation after Bell's palsy symptom onset was found to be significantly shorter in patients younger than our cohort's mean age of 47 when compared to patients older than the mean age. This divergence highlights the significance of age as a factor in the timing of otolaryngologist consultation. Furthermore, the data reveals no statistically significant difference when examining the timeline of otolaryngologist presentation following Bell's palsy symptom onset in the context of race.

Emphasizing the importance of timely presentation and ensuring proper healthcare access in older populations is critical to optimizing clinical outcomes older patients experience. Potential reasons for the age disparity may include difficulties navigating the healthcare system, discrepancies in health literacy, and differences in home or work responsibilities, making healthcare visits more challenging.

Limitations:

- Accessibility to healthcare can be dependent socioeconomic status, which this study does not account for.
- The possibility that patients presented to an outside otolaryngologist or other specialists, which might have not been captured in our database.

Future directions for this study:

- Examining the effect of socioeconomic status on accessibility to otolaryngologist presentation.

CONCLUSION

- After Bell's palsy, Older patients were found to present to an otolaryngologist later than younger patients after onset of Bell's palsy
- This distinction did not manifest among the different racial groups examined.