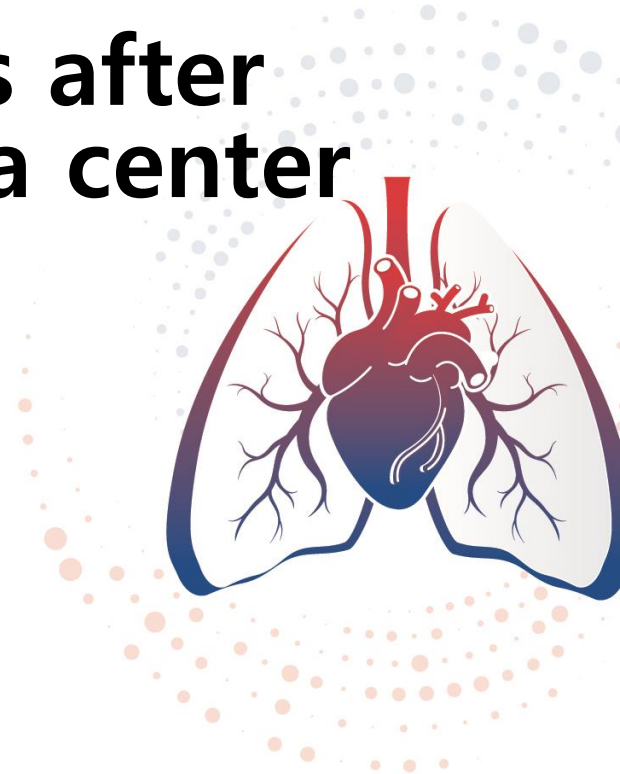


2023 대한심장혈관흉부외과학회

제55차 추계학술대회 & APELSO 2023

2023. 11. 02 (Thu) - 11. 04 (Sat), 그랜드 인터컨티넨탈 파르나스 서울

Paradigm shift of transfer patterns after implementation of a regional trauma center



- The establishment of regional trauma centers has significantly impacted the landscape of trauma care delivery, often leading to changes in patient transfer patterns.
- This study investigates the paradigm shift in transfer patterns before and after the implementation of a regional trauma center in Korea, focusing on the effects of transportation type distribution and outcomes.

- January 1, 2018 – December 31, 2022 (5 years)
- Single center experience
- Retrospective study based on Korean Trauma Data Base (KTDB)
- $N = 9,286$
- Demographic data, transfer patterns, trauma score, destination, distance, mode of transfer, and survival outcomes of all the patients were reviewed.
- Primary outcome: in-hospital mortality

	2018		2019		2020		2021		2022	
	Total	ISS>16	Total	ISS>16	Total	ISS>16	Total	ISS>16	Total	ISS>16
119 Ambulance (Direct)	425	149	426	138	577	207	628	220	638	267
Inter-hospital ambulance	1019	404	970	390	866	371	670	299	445	182
Automobile/Taxi	502	23	445	35	377	30	346	17	247	8
Private ambulance	131	48	120	45	12	3	12	4	114	54
Air-transport	3	2	10	4	5	3	11	4	9	4
Walk-in	19	0	32	1	17	0	64	3	133	11
Etc. (police car..)	5	0	5	2	0	0	1	0	2	0

- Table 1: Transfer characteristics of trauma patients. total : number of total trauma patients, ISS > 16 (injury severity score): number of severe trauma patients

- During the study period, transport by 119 ambulance increased from 21% to 40.1%, and especially the transport rate of severe trauma patients (ISS> 16) rose sharply from 22.4% to 50.7%.
- In contrast, the percentage of transfers from other medical institutions decreased from 50.5% to 28% and the transport rate of severe trauma patients declined from 64% to 34.6%.

Variable	OR	95% CI	P
119 ambulance	23	1.65-18.2	0.04

- The findings from this study contribute to a deeper understanding of the benefits and challenges associated with implementing such centers, particularly in terms of patient access, resource utilization, and clinical outcomes.
- The rate of direct transfer of patients to regional trauma centers after injury has increased, collectively contributed to a paradigm shift in the transfer patterns and ultimately improved the overall efficiency and effectiveness of trauma care.
- We suggested centralized expertise and resources, streamlined communication and enhanced referral system will improve the mortality rate.