Interhospital Transfer of Patients Suffering from Acute Aortic Dissection

- better be accomplished by helicopter or ground-based emergency medical services?

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Purpose

Acute aortic dissection type A (AADA) patients are often initially transported to community hospitals not being able to cope with this emergency situation. Afterwards patients are transferred to specialized centers to receive definitive treatment. This interhospital transfer is accomplished by either helicopter emergency medical services (HEMS) or ground emergency medical services (EMS).

Methods

Retrospectively data from 97 patients diagnosed with AADA in a primary hospital and brought to the German Heart Institute Berlin (GHIB) for final treatment (2010-2012) was collected.

- Mode of transport
- Date and time of AADA diagnosis
- Date and time of arrival at GHIB
- Date of death
- Distance of transportation

Figure 1. Patients' pathway

Table 1. Patients' characteristics

study population (n=97)

Mean age (years)	63,1 ± 12,2
Male (n)	64
Female (n)	33

Results

Figure 2. No significant differences in secondary transport time (P=.095, Mann-Whitney-U-test) between EMS (n=63) and HEMS (n=34), displayed by box-plot.

Figure 3. HEMS (n=34) travelled a distance about 3 times longer (P=.000, Mann-Whitney-U-test) than EMS (n=63), displayed by box-plot.

Figure 4. No significant difference in 30-day mortality (P=.543, Pearson chi-square test) between EMS (n=63) and HEMS (n=34), displayed by bar chart.

Conclusion

No advantage of 30-day mortality among patients transferred by either EMS or HEMS could be found. Although mission times between EMS and HEMS were the same, HEMS travelled a distance about 3 times longer than EMS. Therefore HEMS might be the better option for longer transport distances.