Stroke awareness in the eastern province of Saudi Arabia, a wake up call

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Disclosures

- No financial support for the material presented

- No conflict of interest
  - Interdisciplinary conflict
Overview

- Background
- Objectives
- Method
- Results
- Conclusion
**BACKGROUND**

- Stroke is the second most common cause of death internationally.  
  - It affects around 200 per 100,000 people every year.
- In Arab countries, the annual stroke incidence varies between 27.5 to 63 per 100,000 people, and the prevalence is 42 and 68 per 100,000 population.
- In Saudi Arabia, the prevalence of stroke was estimated at 43.8 per 100,000 per year in Riyadh and 40 per 100,000 in the Eastern Province.

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Objectives

- Assess level of awareness of stroke among general population.
- Recognize defects, wrong perception, and beliefs of Stroke.
- To better understand the attitude of community toward Stroke.
Methods

- A survey consisting of 11 questions pertaining to Stroke awareness and attitudes
- Saudi citizens living in the eastern province older than 15 years of age
- At an awareness campaign organized by the Neurosurgery Department at KFUH.
- They were distributed among hospital visitors.
Result

400 respondents from the community i.e. non-medical personnel
Have you ever heard of “stroke”

- 71% answered yes
- Of those
  - 90% identified attack or thrombosis
- But for embolism or infarction
  - 50% of university level
  - 20% postgraduate level
Is it the heart or the brain?

- Heart: 20
- Brain: 70
- Arms or legs: 10
Name at least 3 symptoms of CVA

- Only 55% of university level could
- Only 40% of postgraduates could
# Mix-up and misconceptions

<table>
<thead>
<tr>
<th></th>
<th>fever</th>
<th>Chest pain</th>
<th>Bone pain</th>
<th>Diarrhea*</th>
</tr>
</thead>
<tbody>
<tr>
<td>University level</td>
<td>35%</td>
<td>50%</td>
<td>35%</td>
<td>15%</td>
</tr>
<tr>
<td>Postgraduate level</td>
<td>20%</td>
<td>55%</td>
<td>25%</td>
<td>5%</td>
</tr>
</tbody>
</table>

* Put as internal control to judge confabulation
## Risk factors identified

<table>
<thead>
<tr>
<th></th>
<th>University level</th>
<th>Postgraduate level</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTN</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Smoking and alcohol</td>
<td>90%</td>
<td>100%</td>
</tr>
<tr>
<td>DM</td>
<td>90%</td>
<td>100%</td>
</tr>
<tr>
<td>CAD</td>
<td>80%</td>
<td>70%</td>
</tr>
</tbody>
</table>
What to do when you identify CVA

100% answered to seek medical help

90% will do that within 6 hours

~ 10% will do that in the first hour

<table>
<thead>
<tr>
<th></th>
<th>911</th>
<th>Primary care</th>
<th>Major Hospital</th>
</tr>
</thead>
<tbody>
<tr>
<td>University level</td>
<td>45%</td>
<td>5%</td>
<td>50%</td>
</tr>
<tr>
<td>Postgraduate</td>
<td>65%</td>
<td>0</td>
<td>35%</td>
</tr>
</tbody>
</table>
What to do if Sx disappear

<table>
<thead>
<tr>
<th>University</th>
<th>Hospital</th>
<th>Primary care</th>
<th>Nothing as it resolved</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>80%</td>
<td>15%</td>
<td>5%</td>
</tr>
<tr>
<td>Postgraduate</td>
<td>80%</td>
<td>10%</td>
<td>10%</td>
</tr>
</tbody>
</table>
Wake up call

- Postgraduate level are not aware of different types of strokes
- Still a major gap in awareness of stroke symptoms
- Good knowledge of the risk factors
- A lot of misconception still exists
Call for action

» Still a majority of patients will not arrive at the correct destination initially,
 » not ASAP,
   » rather within the first 6 hours of symptom onset
   » late for active intervention
Paradigm shift necessary

- Realistic optimism
- Healthy skepticism
- Humble perfectionism

REALISTS
The only ones who really know what's going on.
Hopeful transitions

- Our people deserve better
More public awareness campaigns are needed across all levels of education
Mass media education to disseminate the necessary awareness to the seniors to help better prevention strategy
Social media to disseminate the necessary awareness to the juniors to be able to help potential stroke victims better
Future work

- To collaboratively conduct a similar survey in different regions of the country to know the knowledge gap nationwide.
- To assess level of awareness across medical and allied health professionals.
“The more bizarre a thing is the less mysterious it proves to be”

Holmes