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Case Report

"AGE NO BAR" FOR THROMBOLYSIS.

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ABSTRACT:

The efficacy of thrombolytic therapy in the elderly particular those over 85 years remain a topic of ongoing debate. Although elderly patients account for a disproportionate amount of cardiovascular mortality they have typically been under presented in randomized clinical trial. Till date, no randomized trial has compared thrombolytic and primary coronary intervention in the elderly. Almost 15 years after the publication of first large randomized trial of thrombolytic therapy, controversy remain regarding its effectiveness in the elderly. We are presenting a short series of seven cases that were older than 85 yrs and had underwent thrombolysis and most of then had favorable outcome.

INTRODUCTION:

Cardiovascular disease is the most common cause of death and disability in the elderly. Nearly 60% of patients who die after hospitalization for acute myocardial infarction are aged 75 years or more. Increasing age is the most important long term adverse prognostic factor after an infarction. Thrombolysis with Streptokinase reduce mortality in elderly [1], however they are associated with higher rate of stroke in the older patients especially with risk factor viz. hypertension, low body weight, use of oral anticoagulants before admission, female sex and history of cerebrovascular disease. Although the incidence of stroke is higher in elderly people, the greater overall mortality reduction with thrombolytic treatment may result in greater net clinical benefits. Despite this evidence, advanced age remains one of the strongest huddle for not receiving thrombolytic therapy even in those who had presented in golden hours for thombolysis. Whilst by no means being a clinical trial, this short case series would lend support to the notion that the elderly with acute myocardial infarction who are not having above mentioned risk factor have much to gain from thrombolytic therapy and age should not be an exclusion criterion for administration of thrombolytic therapy.

CASE REPORT:

Case records of patient with acute ST Elevation myocardial infarction [STEMI] who are older than 85 years, presented within 12 hours of chest pain and who underwent thrombolysis with streptokinase in CCU of department of Cardiology Institute of Postgraduate

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Medical Education & Research [IPGMER] Kolkata between 2005-06 were reviewed. The clinical characters, treatment received and final outcome till discharge or death were evaluated. Total seven patients presented during this period. The clinical characters & complication during stay are represented in Table-1.

DISCUSSION

Ageism in medicine may be partly a consequence of lack of awareness of evidence-based literature on the treatment of older people. Patient older than 70years account for a third to half of patients with acute myocardial infarction admitted to hospital [2] and 80% of death due to acute myocardial infarction occur in those who are older than 65 years out of which 60% were aged 75 or more [3]. Despite extensive studies of thrombolytic treatments in large number of patients, we lack data on elderly subject and particularly those who are older than 85 years.

Over 60% of trials have excluded patients aged over 75years, with higher rate of exclusion in studies

Character	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7
Age Yr.	87	89	93	85	85	95	98
Sex [M/F]	M	M	M	M	M	F	M
Chest pain duration hrs]	6.5	5	9	11	8	8.5	7
Infarct Territory	Anterior	Inferior	Inferior	Inferior With RV	Anterior	Inferior	Inferior
H/O DM	No	Yes	No	No	Yes	No	No
H/OHTN	Yes	Yes	No	No	No	Yes	No
H/O CAD	No	No	No	No	Yes	No	No
ST ELEVATION & SCORE	V3-v6 6mm	II, III, avF 4mm	II, III, avF 4mm	II, III, avF 5mm	VI, V2, V3 8mm	II, III, avF 6mm	II, III, avF 5mm
Conduction Abnormality	None	2nd AV Block [Wenkebach]	3°AVBlock	3°AV Block	None	2°AVBlock [Wenkebach	2°AV Block [Wenkebach
Complication Following Thrombolysis	Gum bleed	Hematuria	None	None	Apical VSD	Gum bleed Hematuria	None
Resolution of Conduction Abnormality	-	6thday	4th day	4th day	-	9th day	3rd day.
Final Outcome	Discharged on day 10	Discharged on day 14	Discharged on day 10	Discharged on day 12	Expired on 2nd day	Discharged on day 14	Discharged on day 7th

involving invasive procedure [3]. An overview of thrombolytic trials showed that only 10% of patients were aged over 74 years [4]. In both GISSI -1 & ISIS-2 trial a trend toward decreased mortality with streptokinase versus control in patient age > 75 years has been documented as well as a recent decision analysis model that incorporated these data suggests that streptokinase therapy is cost effective in elderly [5]. Even in the absence of specific contraindication older patients still receive thrombolytic treatment less often than younger one. The increased incidence of adverse events with increasing age particularly intracranial hemorrhage has inhibited widespread use of thrombolytic treatment among elder patients. In the GUSTO-1 trial the incidence of intracranial hemorrhage receiving streptokinase is 0.42% in under 75 yr and 1.23 % over 75 years [6].

In our case series of seven patients older than 85 years who underwent thrombolysis with streptokinase there is only one mortality the 5th case that developed basal VSD and died on 3rd day. None of them developed the most feared complication of intracranial hemorrhage and successful thrombolysis has been achieved even at age of 98 years.

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