

Analysis of femoral neck fracture in octogenarians and its management: A retrospective cohort study in Kauvery Hospital, Cantonment, Tiruchirappalli

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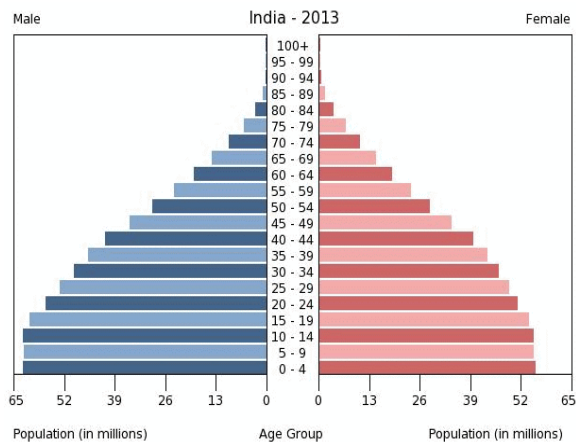
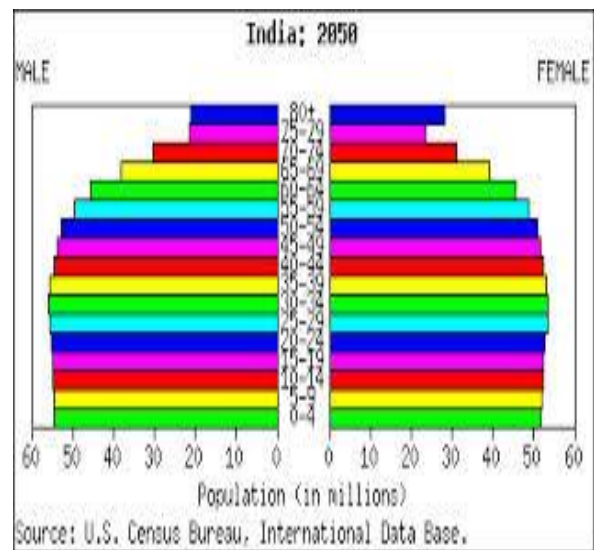
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Background

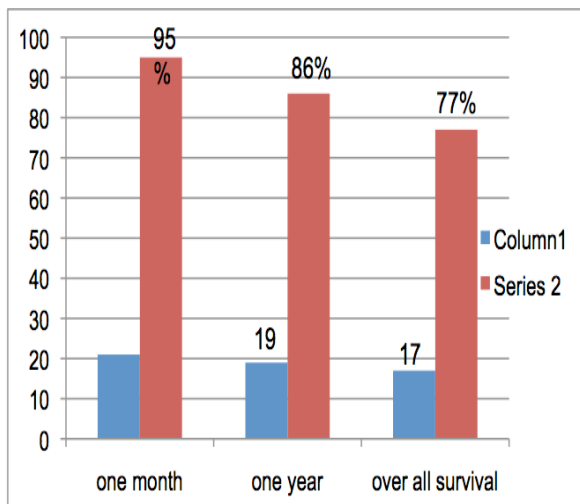
The six million populations of people in India above eighty years in 2013 will rise up to thirty million by 2050^[1]. The very elderly suffer from co-morbidities like osteoporosis, medical problems, financial problems and most of them are dependent on others for their care. Falls are the fifth leading cause of death in elderly ^[2]. 5 % of those elderly people who have falls have major fractures like fracture neck of femur, distal radius fracture, and vertebral fractures.



A fracture of the femur is a significant trauma in life; and that occurring in the elderly is disabling. If left untreated, it leads to high mortality and morbidity. We have analyzed the neck of femur fracture in 80+ years and above, admitted in Kauvery Hospital, Cantonment branch from 2009–2015 and their management and outcome.

Study Materials and Method

- 1) The Study period was 2009-2015, we analyzed patients aged 80 and above admitted for Fracture neck of Femur.
- 2) 22 patients were chosen based on the criteria; they were followed up for mean 4 years.
- 3) It was a retrospective study of data collected prospectively. Medical records were reviewed and latest follow up done through telephone
- 4) Fracture incidence to presentation to hospital:
 - a) < 2 days-13 patients (59%)
 - b) >2 days-9 patients (41%)
- 5) Delay in surgery for more than 48 hours - 7 (32%)
- 6) More than three significant co-



morbidities - 8 cases (36%).

Results

1. Mortality

- Survival after the surgery (total 22 cases)
- The one year mortality is 14%, is well below the international rate of 25% [3]

2. Complications (surgery specific)

The surgery specific morbidities like wound infection, hip dislocation following surgery, revision surgery and instability were nil. Symptomatic DVT was in 2 cases (9%).

3. Medical complications

- RTI - 1
- Electrolyte imbalance - 2
- CAUTI (catheter associated urinary tract infection) - 2
- Bed sore - 1

Discussion

Results of the study indicate that ambulatory persons, aged 80 years who sustain a fracture neck of femur, if operated and

rehabilitated, do well in the short and medium term.

The literature review suggests high mortality rate in this group of patients. However, we have achieved better results.

- Low mortality rate is due to early intervention as soon as the patient presented and their co morbidities management^[4] with multispecialty team. Co- management included Orthopaedician, Anesthetist, Cardiologist, Geriatrician, Diabetologist, Nephrologist and other departments. Care of the patient preoperatively results in stabilizing the patient.
- The delayed presentations of patients to the hospital do not affect the post-operative outcomes.
- Surgical management was delayed intentionally up to 48hours to medically stabilize the patient.
- The duration of the hospital stay was in average 5–14 days, which was possible due to early mobilization and co management.
- We do not recommend chemical thromboembolic prophylaxis in this group of patients. We recommend

mechanical thromboprophylaxis. (Our incidence of DVT - 9%, PE - Nil). The mechanical venous thromboembolism prophylactic care given to all the elderly was effective (91%). International literature states that pneumatic compression reduces the relative risk by 63%. The pneumatic DVT pump is efficient in DVT prophylaxis.

- Functional independence is the need for the elderly; when deprived it leads to life of solitude and depression. The care for the elderly is focused upon functional independence for them. In our practice, we did not deny surgery citing age and co morbidities . All the co morbidities were properly managed and treatment given thereby providing functional independence to the elderly ^[4].

Conclusion

Based on our experience and literature review,

- We do not recommend denying surgery based on preoperative co morbidity and, delayed presentation.

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- When co morbidities dictate, delaying appropriately to optimize does not increase preoperative mortality. Multi-disciplinary approach was needed for care in elderly.
- Early surgery, mobilization and bed sore prevention yield good results. Dedicated pain management protocol, standard catheterization and infection prevention protocol specialized for the very elderly should be followed
- Mechanical DVT prophylaxis is a safer option in elderly patients with hip fractures.

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