Effect of multidisciplinary treatment approach for geriatric hip fractures

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【Objects】 To evaluate the effect of multidisciplinary approach for geriatric hip fractures

《Team Approach for Geriatric Hip fractures》

1. Safely & smoothly decrease time to surgery

- Initial examination by internists on emergency room
- Internal medicine subspecialty consultation criteria
- Unified medical records

2. Improve perioperative complications

- Delirium prevention and early treatment in cooperation with Psychiatrist
- Dysuria care with Urologist
- Co-management with Geriatrician

3. Secondary fracture prevention

- Control of osteoporosis treatment by ward pharmacist
- Patient education by pharmacist, dietician, PT, nurse
- Fracture Liaison Service
: System to continue osteoporosis treatment (2016.8-)

Osteoporosis & fall prevention lectures

【Patients and Methods】

597 patients with hip fracture were treated in our hospital for 4 years from January 2014 to December 2017.

We evaluated 528 patients, excluding under age 65, conservative treatment, poly-trauma, and pathological fractures.

Cases: 528 cases

Sex: Male 104, Female 424

Age: Avg. 84.5 years (65 – 101years)

Fracture type: Trochanteric 328, Neck 194, Combined 6

Surgical Procedure:

Internal fixation 385, Endoprosthesis 139, THA 4

Evaluation items

- Time to surgery
- Length of hospital stay
- Postop. complications
- Osteoporosis treatment; Pharmacotherapy rate
At admission and discharge & After discharge
- Functional recovery
- Mortality
- Medical cost

【Results】

★ Time to surgery

Avg. :36hr 13min

Within 48hr :71.4% 3 days shorter than the annual Japanese national average

	2014	2015	2016	2017
Avg. day	1.3 (0-11)	1.5 (0-11)	1.3 (0-6)	1.6 (0-12)
National Avg. day	4.5	4.3	4.2	4.2

★ Length of hospital stay

Avg. :19.8 days

more than 2 weeks shorter than the annual Japanese national average

	2014	2015	2016	2017
Avg. day	18.4 (8-36)	19.7 (10-48)	20.0 (10-55)	21.1 (10-161)
National Avg. day	36.8	36.3	36.2	36.5

★ Postop. complications

Number (rate) 219 (41.5%)

Delirium	40 (7.6%)	Serious	
Mild		Pneumonia	16(3.0%)
Deep venous thrombosis	90(17.0%)	Pulmonary embolism	4(0.8%)
Dysuria	71(13.4%)	Heart failure	4(0.8%)
Urinary tract infection	4(0.8%)	Sepsis	3
Gastrointestinal ulcers	6	Cerebral infarction	2
Enteritis	2	Deep infection	1
Pressure ulcer	2	Acute liver failure	1
Hyponatremia	2	CAPD peritonitis	1
Acute cholecystitis	1	Others	6

★ Mortality

	In-hospital	90-day	180-day	1-year
Total	0.9%	2.5%	6.9%	13.7%

★ Osteoporosis treatment

High rate of anti-osteoporosis treatment at the time of discharge and after discharge

★ Functional recovery

pre-injury functional level

* At the time of discharge from rehabilitation hospital

★ Medical costs

The total hospitalization medical costs per patient

【Conclusion】

- We organized the multidisciplinary treatment approach for geriatric hip fractures.
- As the results:
Time to surgery, hospital stay were shorter than national avg.
High rate of osteoporosis treatment at discharge and at F/U,
Better functional recovery,
Total medical cost per person was less than national avg.
- Multidisciplinary treatment approach for geriatric hip fractures is possible to conduct in Japan and was effective.