Impact of oncogeriatric interventions on cancer outcomes and treatment

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Introduction

Last ten years, clinical trials adopting Comprehensive Geriatric Assessment (CGA)
What do we learn from?

1 – CGA is feasible in elderly patients with cancer

2 – CGA recognize unsuspected health problems in these patients (functional impairment, cognitive impairment, malnutrition …)

3 – CGA has a prognostic and predictive role
Some CGA domains, as comorbidity, functional impairment, malnutrition, depression, are predictive of chemotherapy toxicity, severe complications or lower survival

4 – Can CGA and geriatric intervention improve the care of elderly patients with cancer?

Effectiveness of GEM in elderly patients hospitalized as an emergency

Ellis G, BMJ, 2011

Meta analysis of randomized trials
22 trials, 10 315 patients
Intervention: CGA and management during hospitalization in geriatric wards or by Mobile CGA teams for patients hospitalized in standard wards
Living at home (ie no death nor admission to residential care) at 6 months: OR 1.25 (1.11 – 1.42)
Geriatric wards 1.31 (1.15 – 1.49)
Mobile teams 0.84 (0.57 – 1.24)
No statistically significant difference for mortality

Effectiveness of Geriatric Evaluation and Management(GEM) in elderly hospitalized patients

Stuck AE, Lancet 1993
Recent meta analysis of randomized studies concerning GEM Units
- Less functional decline at discharge
- Lower rate of institutionalization 1 year after discharge
Van Craen K, JAGS 2010

Van Craen K, JAGS 2010

Effectiveness of GEM in elderly patients hospitalized for hip fracture surgery

319 patients aged 65 and older hospitalized for hip fracture surgery
Daily multidisciplinary geriatric intervention or usual care during hospitalization in the acute phase of hip fracture
Lower in-hospital mortality (0.6% vs 5.8%, P=0.03)
Lower major medical complications rate (45.2% vs 61.7%, P=.003)
GI associated with a 45% lower probability of death or major complications
Vidan M JAGS 2005

171 patients aged 65 and older
Assigned to a multidisciplinary geriatric intervention or usual care
Significantly more controls (33.2%) than GI group participants (37.2%; P = .04) were delirious at any point after surgery.
Rate of cognitive decline at discharge higher in controls (38.7% vs 22.6%; P = .02)
Deschodt M, JAGS 2012

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### Geriatric Evaluation and Management (or co-management) in elderly patients with cancer

**Prospective cohort studies**

| Study Details | Outcome
|---|---|
| Initial treatment planned by oncologist | 105 patients
| Referral to geriatrician | Multidisciplinary treatment plan
| Initial cancer treatment changed for 38.7% of the patients | Mostly modifications of chemotherapy (alternative regimens or another treatment strategy)
| 30 patients (GI lung cancers) | Modification of initial treatment plan in 6 patients (20%)
| Treatment plan decided for 24 patients (modification for 1 patient) | Treatment plan decided for 24 patients (modification for 1 patient)
| 105 patients | Gerre V 2008
| Change in treatment plan for 82% of patients | Geriatric interventions 76%
| Anticancer Tt 49% | No screening tool
| Geriatric interventions > 70% | Clinical judgment
| No change in treatment for 20% | < 20% of newly diagnosed elderly patients at institution
| Change in treatment plan for 82% of patients | Chemotherapy initially proposed for 90% of patients
| Treatment plan uncertain for 6 patients | CGA influenced final treatment plan for 5 of these 6 patients

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**Randomized control studies**

| Study Details | Outcome
|---|---|
| 33 patients aged 65 and over | Lapid MI Palliat Support Care 2007
| Subgroup analysis, radiation therapy for cancer | Intervention consisted of eight 90-min sessions
| Higher QOL scores at baseline, at week 4 and at week 8, compared to the control participants | Higher QOL scores at baseline, at week 4 and at week 8, compared to the control participants
| 99 patients | Rao 2005
| Inpatients and outpatients | Treatment for cancer, medecine teams or GEM Units
| No difference in overall survival | No difference in overall survival
| Improved pain control and mental health scores | Improved pain control and mental health scores

**Randomized control studies**

| Study Details | Outcome
|---|---|
| 87 older patients | Soejono CROH 2006
| Stage III hepatocellular carcinoma | Randomization geriatric ward or internal medecine ward
| At discharge, improvement in quality of life, pain, ability to complete ADL | At discharge, improvement in quality of life, pain, ability to complete ADL

**Randomized controlled studies**

| Study Details | Outcome
|---|---|
| 367 patients, aged 60 – 92 years | McCorkle, JAGS 2000
| With solid cancers, treated surgically | One month geriatric intervention in post-operative in the specialized home care
| Relative hazard of death in the usual care group was 2.04 (CI: 1.33 to 3.12; P = .001) after adjusting for stage of disease and surgical hospitalization length of stay. | Relative hazard of death in the usual care group was 2.04 (CI: 1.33 to 3.12; P = .001) after adjusting for stage of disease and surgical hospitalization length of stay.
| Increased survival at two years of patients with advanced stage by 27% (67% vs 40%) for patients in the intervention group | Increased survival at two years of patients with advanced stage by 27% (67% vs 40%) for patients in the intervention group

**Randomized controlled studies**

| Study Details | Outcome
|---|---|
| 335 women aged 65 and older newly diagnosed with breast cancer | Goodwin JS, JAGS 2003
| Intervention group: nurse case manager for 12 months after diagnosis | Greater percentages in the case management group
| - conserving surgery (28.6% vs 18.7%; P=.031) and radiation therapy (36.0% vs 19.0%; P=.003). | - conserving surgery (28.6% vs 18.7%; P=.031) and radiation therapy (36.0% vs 19.0%; P=.003).
| - adjuvant radiation (78.3% vs 44.8%; P=.001) and axillary dissection (71.4% vs 44.8%; P=.057) for conserving surgery patients | - adjuvant radiation (78.3% vs 44.8%; P=.001) and axillary dissection (71.4% vs 44.8%; P=.057) for conserving surgery patients
| Trend for more frequent breast reconstruction surgery (9.3% vs 2.6%, P=.054). | Trend for more frequent breast reconstruction surgery (9.3% vs 2.6%, P=.054).
| Trend for more frequent chemotherapy for women with advanced cancer (72.7% vs 30.0%, P=.057). | Trend for more frequent chemotherapy for women with advanced cancer (72.7% vs 30.0%, P=.057).
| Two months after surgery, normal arm function (93% vs 84%, P=.037) | Two months after surgery, normal arm function (93% vs 84%, P=.037).
| Women with indicators of poor social support were more likely to benefit from nurse case management | Women with indicators of poor social support were more likely to benefit from nurse case management
**Geriatric Evaluation and Management (or co-management) in elderly patients with cancer**

**Randomized controlled studies**

At need of randomized controlled studies, but questions must be resolved

Which elderly patients
- all of them (aged over 65, 70, 75, 80 ...?)
- or only patients selected by a screening tool
- which one: G8, VES13, SOF, ISAR ...
- problematic: screening tools for CGA

Which cancer
- all cancers and hematological malignancies
- selected cancers
- all stage, or only advanced stages

**Conclusion**

Great need for randomized studies evaluating the impact of Geriatric Evaluation and Management in elderly patients with cancer

Proven effectiveness of GEM in these patients would be of dramatical importance in terms of
- discussion with politic/ economic deciders
- attribution of financial support to Oncogeriatric teams
- Health system organisation

But questions remains unsolved for such studies
- methodological
- ethical

**An example of a near on-going randomized controlled study**

(E Pallaud, L Bruget)

Effect of geriatric evaluation and management on the survival and functional status in elderly patients with head and neck squamous cell carcinomas (HNSCC) cancer: a randomized controlled multicenter clinical trial

Survival of elderly patients with head and neck squamous cell carcinomas (HNSCC) cancer is greatly reduced compared to younger subjects, because of
- a competitive comorbidity
- a more frequent refusal of standard therapy
- or the choice of a suboptimal treatment due to fear of toxicities.

CGA and geriatric follow-up may improve
- the therapeutic decision-making process thanks to a better assessment of the patient's functional reserve and its capacity to support or not the treatment
- the overall survival, the functional status and the nutritional status of elderly patients with HNSCC because of a more appropriate treatment and a personalized medical follow-up.

Main objective: To assess the impact of the CGA and the geriatric follow-up on the overall survival, the functional status and the nutritional status of elderly patients with HNSCC within 12 months after the end of treatment
Thank you for your attention

This picture may represent collaboration between haematologist/oncologist and geriatrician
... or great effectiveness of geriatric intervention in elderly with cancer