Impact of oncogeriatric interventions on cancer outcomes and treatment

Dr Pascal CHAIBI
Geriatric Department and Medical Oncology Department, Pitié Salpêtrière Charles Foix Hospital, Paris, France
UCOG (OncoGeriatric Coordination Unit) Ile de France Est

Introduction

Last ten years, large number 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 …)

Intervention?

Introduction

Last ten years, clinical trials adopting Comprehensive Geriatric Assessment (CGA)

What do we learn from?

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 Geriatric Evaluation and Management(GEM) in elderly hospitalized patients

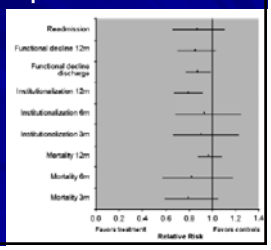
GEM = CGA + geriatric management (individual care plans, rehabilitation, early discharge planning, follow up after discharge …)

Statistically significant lower mortality at 6 months after discharge in the intervention group

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



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 GEM in elderly patients hospitalized for hip fracture

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=.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 (53.2%) 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

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

Prospective cohort studies

Initial treatment planned by oncologist

Referral to geriatrician\ Multidisciplinary treatment plan

105 patients Girre V 2008

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) Horgan AM, 2011

Modification of initial treatment plan in 6 patients (20%)

Treatment plan decided 24 patients (modification for 1 patient)

Treatment plan uncertain for 6 patients (CGA influenced final treatment plan for 5 of these 6 patients)

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

Prospective cohort studies

161 patients Chaibi 2010
Change in treatment plan for 82 % of patients

Anticancer Tt 49 %

Geriatric interventions 76 %

No screening tool

Clinical judgment

< 20 % of newly diagnosed elderly patients at institution

Chemotherapy initially proposed for 90% of patients

375 patients Caillet 2011
Change in treatment plan for 20,8 % of patients

Anticancer Tt 20,8 %

Geriatric interventions > 70 %

No screening tool

Clinical judgment

52,5 % of newly diagnosed elderly patients at institution

Chemotherapy initially proposed for 52,5% of patients

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

Randomized control studies

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

99 patients Rao 2005

Inpatients and outpatients

Treatment for cancer, medecine teams or GEM Units

No difference in overall survival

Improved pain control and mental health scores

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

Randomized control studies

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**

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

Randomized controlled studies McCorkle, JAGS 2000

367 patients, aged 60 – 92 years

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.

Increased survival at two years of patients with advanced stage by 27% (67% vs 40%) for patients in the intervention group

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

Randomized controlled studies Goodwin JS, JAGS 2003

335 women aged 65 and older newly diagnosed with breast cancer

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).

- 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 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)

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**

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

Randomized controlled studies

Randomization between standard treatment and GEM

- **Would this randomization appear ethical to oncologists and geriatricians?**

- **What is standard treatment in an elderly unselected population with cancer ?**

- **Is standard treatment feasible in an oncologic team who used to work with geriatricians ?**

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

Randomized controlled studies

Randomization between standard treatment and GEM

- **Which GEM**
  - **Intervention limited to a small number of domains (nutritional, comorbidity, rehabilitation)**
  - **Intervention adapted to each patient, based on personal CGA results (details of complex interventions)**
  - **With modifications of anti cancer treatment plan ?**
  - **Outpatient or inpatient basis**
  - **Mobile geriatric team or geriatric wards**
  - **When: prehabilitation for surgery, post operative**
  - **Duration of geriatric intervention (importance of post discharge follow up)**

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

Randomized controlled studies

Randomization between standard treatment and GEM: which outcomes ?

- **Overall survival, disease free survival**
- **Functional impairment**
- **Living at home (survival + no major functional impairment)**

- **Adverse events, chemotherapy' toxicity**

- **Quality of life**

- **Cost**

An exemple of a near on-going randomized controlled study (E Paillaud, L Brugel)

Effect of geriatric evaluation and management on the survival and functionnal status in elderly patients with head and neck squamous cell carcinomas (HNSCCs) 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, beecause 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 my 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

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**

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