Issues with the Elderly on using radiotherapy treatment in Sarawak

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INTRODUCTION:

- Risk of Cancer increases with age\(^1\).

- In USA it is estimated that a third of septuagenarians will develop a new cancer during the rest of their lives\(^2\).

- Under treatment plays a vital role in late diagnosis

Barriers to treatment

- Under treatment
- Lack of effective assessments
- Other illnesses and multi-drug use
- Lack of knowledge of elderly care
- Lack of practical support
- Age discrimination
Radiotherapy (RT) remains as mainstay treatment (curative) option for older patients where frailty precludes surgery
Radiotherapy techniques

Teletherapy

1. Conventional RT
2. Modern CT-based RT (IMRT, IGRT, SBRT, ART)

Brachytherapy

1. Interstitial
2. Intracavitary
Advantages and Disadvantages of RT

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<tr>
<th>Intent</th>
<th>Advantages</th>
<th>Disadvantages</th>
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<tr>
<td>Curative</td>
<td>Loco-regional control</td>
<td>Long duration of treatment</td>
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<td>Prophylactic</td>
<td>Limited side effects</td>
<td>Fatigue</td>
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<tr>
<td>Control</td>
<td></td>
<td>Site-related toxicities &gt; pronounced</td>
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<td>Palliative</td>
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<td>Recovery slower in older patients</td>
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• Important to differentiate between physical consequences of aging and toxicities of Radiation therapy

Geriatric assessment prior to treatment:

**Assessment tools**
CGA (time consuming)

**Quick assessment tools**
Groningen Frailty Index
Vulnerable Elders Survey
Timed “up and go”
Population density (person per Km²)

Sarawak
- Sarawak population: 2.5 million
- Racial groups: Natives, Malay & Chinese
- The Dept of Radiotherapy, Oncology & PC in SGH is the only government hospital with cancer treatment facility in Sarawak.
- 1700 new cancer cases seen annually. 30% elderly (>65 years)

*We present preliminary report of our findings on the elderly patients*
Time Frame: 2005-2010
Total cases: 1665
Male = 882, Female = 783
Completed clinical details = 1200
METHOD:

- Data from department’s medical records
- Data analysed using SPSS for the elderly (≥65 years) for the following:

1. Incidence, stage at initial presentation
2. Differences between urban & rural population
3. Type of treatment received
4. Reasons for no treatment
RESULTS

Incidence:

- All cancer (except skin) of all races above 65 years old is $212/10^5$
- Rural patient: $202.3/10^5$
- Urban patient: $222.3/10^5$

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<th>Chinese</th>
<th>Malay</th>
<th>Native</th>
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<td>332.3/10^5</td>
<td>186.0/10^5</td>
<td>146.2/10^5</td>
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difference not significant
Age distribution of geriatric cancer
cases in Sarawak (2005-2010)
Percentage of cancer patients from various races in urban and rural Sarawak

76% of Chinese from urban areas and 79% of Natives from rural areas.
Figure 2. Common cancers in geriatric and non-geriatric group.

- Breast
- NPC
- Lung
- Cervix
- Colon
- Stomach
- Rectum
- Prostate

Average cases per year

- Non-geriatric
- Geriatric
Distribution of cases in each age groups for different cancers (2005-2010)

Types of cancer: Colon, Breast, Lung, Stomach, NPC

Age groups: 65-70, 71-75, 76-80, 81-85, 86-90, >90

No of cases vs Types of cancer chart
Incidence of cancers amongst various races

- Breast
- Colon Cancer
- H&N

Incidence/100,000

Chinese
Malay
Native
Stage:

- Difference between the Chinese, Malay & Native for early & late stages (p<0.008)

- Late stage (III & IV) : 76% (n= 914)

- No difference in late stage between urban & rural areas

- For breast cancer, 53% present in early stage (Stage I & II)

Difference In Staging of common cancers (2005-2010)

Percentage of Early And Late

Types Of Cancer

Breast | Colon | Stomach | Lung | NPC

Early | Late

0.0 | 10.0 | 20.0 | 30.0 | 40.0 | 50.0 | 60.0 | 70.0 | 80.0 | 90.0 | 100.0
Treatment:

- 90.5% (n= 1080) of the patients received treatment (radical, palliative to best supportive care)
- 53% received Palliative RT, 14% received RT+ Surgery (Radical)
- Types of treatment received (Fig. 5)

Reason for No Treatment: 9.5%

- Poor performance status
- Refused treatment
Types of Treatment

- RT: 53%
- Surg+RT: 14%
- Surg+Chem: 7%
- Surg+Chem+RT: 6%
- No Treatment: 9%
- Chem: 6%
- Chem+RT: 5%
Refused treatment

- Family’s decision
- GP’s decision
- Patient’s decision
- Alternative treatment
Common misconception about RT is the associated local name “TIEN” or "電" in mandarin. The literal translation is “electric shock”

Many perceive RT to “shock treatment” and hence need more public education.
Pilot Study Conducted:
June 2009 to August 2010

Objective of the study:

➢ To assess the feasibility of using GFI at DRO (practical and cultural feasibility)
➢ To assess GFI quality to aid in treatment decision. To compare it to ECOG.
Geriatric Assessment using GFI

• GFI easy to use for elderly patients from different cultural backgrounds.

• The time to complete the questionnaire was about 10 minutes & hence feasible to use in a busy clinic.

• ECOG is a quick assessment tool but GFI gave more information.

• 53% with GFI score 0-9 and 40% with ECOG score 0-2, completed treatment

• 63% of those scored 3 in the ECOG who would have received best supportive care, had treatment. Of these 41% completed treatment.
SUMMARY

- Lack of knowledge about RT in health professionals as well as public.
- Family and GPs play vital role in decision making.
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References

