CERVICAL CANCER IN A PATIENT FROM LOW SOCIOECONOMIC GROUP: A CASE STUDY OF TERTIARY PREVENTION

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ABSTRACT

**Introduction:** Cervical cancer is ranked fourth globally and second in Malaysia as the most common cancer in women. Despite having good prognosis if detected early, most cervical cancer cases in Malaysia unfortunately come in late for treatment.

**Case report:** This is a case study of a 39 year old Malay lady who was diagnosed with cervical cancer stage IVB with metastasis to lungs, ovary, rectum and urinary bladder. Due to her financial predicament she had initially refused treatment, thus had delayed surgical intervention (bilateral salpingo-oophorectomy and omentectomy). She also had a history of defaulting on her scheduled chemotherapy treatment which could be attributed to financial problems and cultural beliefs. However, currently she is back on chemotherapy and follow-up at the hospital, plus she is on continuous urine catheterisation while her Activities of Daily Living (ADL) is much compromised. Although chemotherapy for this patient is meant to relieve her symptoms, many aspects of her palliative care could be improved with increased knowledge and support from the relevant authorities and organizations.

**Conclusion:** This report looks at the progress of a patient with cervical cancer stage IVB from a very low socioeconomic group who came very late for diagnosis and treatment, while having a history of defaulting treatment.

**Keywords:** cervical cancer, low socioeconomic group, palliative care
1.0 Introduction

Cervical cancer is preventable. There are 3 modalities of prevention that need to be looked into in managing this disease which are primary, secondary and tertiary prevention. Primary prevention includes specific protection such as taking human papilloma virus (HPV) vaccination and other non-specific measures such as condom use during sexual intercourse, avoiding long term use of oral contraceptives and to stop smoking. Secondary prevention is through screening using Papanicolaou (Pap) smear test for early detection and treatment of the disease. Finally, tertiary prevention involves measures to reduce progression or recurrence of invasive cancer as well as palliative care (Zaridah S, 2014).

The most common aetiology of cervical cancer is persistent infection of a specific human papillomavirus (HPV) while the other significant risk factors are number of sexual partners, early age of first intercourse and being in the older age group (Vesco et al, 2011, Haghshenas et al., 2013, Cheung et al., 2011). Thus the Ministry of Health Malaysia started the HPV vaccination program since 2010 and proposed bivalent type cervarix and Gardasil (quarivalent) to be used in hospitals and health clinics. These vaccines provide strong protection against HPV (16 and 18) infection, however they are not effective to treat established HPV infection (Hildesheim et al., 2007 and Hariri et al., 2011).

Worldwide, cervical cancer has become the fourth most common cancer among females and the seventh most common cancer overall (Ferlay et al, 2015). Annually, it is estimated that 275 000 deaths occur globally due to cervical cancer (Arbyn et al., 2011). According to the Malaysian National Cancer Registry 2003, cervical cancer was ranked as the second most common cancer among women. It is reported that there are about 2000 to 3000 cases of cervical cancer admissions per year in Malaysia with most of them presenting late into the disease (Devi Beena et al, 2008).

A study in Sudan showed that among the factors associated with presenting at a late stage are older age group, not having health insurance, ethnicity and being a rural resident (Ibrahim et al, 2011). Meanwhile a study in Malaysia showed that although the awareness of the indication and benefits of Pap smear test is good among the study population, the poor uptake of the test could be linked to perceived barriers such as lack of information and lack of convenient clinic time (Baskaran et al, 2013) and in another study the findings include cost factor and embarrassment (Al-Naggar et al, 2010). Among the general factors which lead to late detection is the fact that early cervical cancer and pre cancer stages show no symptom. Nevertheless, the overall cervical cancer survival rate in Malaysia is good and age and ethnic group are significant determining factors for cervical cancer survival. Women less than 45 years old have a better 5-year survival rate compared to those 45 years and above, Malays have the lowest survival rate (59.2%) compared to Indians (69.5%) and Chinese (73.8%) (Nor Asiah et al, 2015).
2.0 Clinical History and Management

2.1 Summary of Clinical History, Physical examination and its progress

a. Chief Complaint

Madam A is 39 year old Malay lady. Her current admission is to complete her third cycle chemotherapy (Cisplatin-based combination) for cervical cancer stage IVB.

b. History of Presenting Illness

She was diagnosed to have cervical cancer in May 2014, when she presented with per vaginal bleeding for six months prior to the admission. It was dark clotted blood which required the use of ten overnight pads per day. She also noticed that her abdomen was distended and progressively increasing in size and she also suffered frequent dizziness, episodes of fainting, constipation and tenesmus. Otherwise, she had no constitutional symptoms such as loss of weight and loss of appetite. Her first admission was because she developed shortness of breath and fainted. She was then diagnosed to have cervical cancer through cervical biopsy and computerized tomography (CT) scan which showed that the cancer had metastasized to the lungs, ovaries and rectum. The treatment plan was to do a bilateral salphingo-oophorectomy and omentectomy with concurrent chemotherapy. However, initially she refused surgery and treatment.

Four month later (September 2014) she presentation again with the same problems (shortness of breath and fainting) and the recommended surgical intervention (bilateral salphingo-oophorectomy and omentectomy) was carried out in November 2014. After two cycles of chemotherapy (i.e. February 2015) she defaulted treatment again and only presented to the hospital with haematuria three months later (May 2015) which worsened over the next four months when she had difficulty in urinating. On September 2015 urine catheter was inserted and percutaneous left nephrostomy done.

c. Past Medical History

She is hypertensive on Perindopril (4 mg daily) since 3 years ago. No history of malignancy prior to this diagnosis and no history of malignancy in her family.

d. Obstetrics and Gynaecology History

She attained menarche at 12 years old, married at the age of 24 years old. Obstetric history reveal that she is gravid 6 and para 4, first child is 15 and the youngest is 9 years old. She was on oral contraceptive pills for 6 years (i.e. from the age of 25 until 31 years). She stopped using oral contraceptive pills after her husband left her (8 years ago) and she reported that her husband had another sexual partner during their marriage. She did Pap smear test once in 2002 and the result was negative and she had never received HPV vaccination.
e. Social History

Madam A does not smoke nor consume alcohol. Currently she and three of her children are staying in a house owned by her younger brother while one of her children is adopted by her elder sister. She has no source of income except from Social Welfare Department and *Baitulmal* (a religious charity system in Malaysia) which totals RM 500 per month. The only family member that is helping her is her younger brother who works as a gardener and earns about RM 800 per month. Her brother has his own family which consists of a wife and two children.

f. Findings of Physical Examination and Investigation

Upon examination, the patient looked weak. However her hydration status was good and her vital signs were stable (pulse rate was 93 beats per minute, blood pressure was 127/63 mmHg, temperature was 37 °C and respiratory rate was 22 breaths per minute). Her abdomen was soft, non-tender, with scars from a laparotomy and left lumbar nephrostomy noted. Her lungs were clear with no rhonchi or crepitation heard.

CT thorax on September 2015 showed a cyst in both lungs with no pleural effusion while CT abdomen showed irregular and heterogeneous enhancing mass in the cervix (measuring 6.1 cm x 5.4 cm x 6.0 cm) infiltrating the urinary bladder anteriorly and in close proximity with the rectum posteriorly.

2.2 Final Diagnosis and Summary of Clinical Management and Treatment Plan

Madam A is suffering from cervical cancer stage VIB with metastasis to lungs, ovary, urinary bladder and rectum, which was diagnosed about one and a half year ago. Bilateral salphingo-oophorectomy and omentectomy was carried out about a year ago and percutaneous left nephrostomy was carried out and urine catheter was inserted about two months ago to relieve ureter and bladder obstruction. Currently, she is on Cisplatin-based combination chemotherapy treatment.

3.0 Assessment of patient’s environment and lifestyle

3.1 Physical environment

Madam A and her family previously owned a house but they were chased out by her elder sister due to some family issues. Thus, at present she and her three children live with her younger brother’s family in a village. One of her daughters is adopted by her elder sister. The house that they live in is a very old house inherited from her grandfather. The house is a wooden floored house, comprises of a bedroom, a space which serves as the kitchen and the living room, a squatting toilet and bathroom. Patient sleeps on a bed near to the entrance of the house in the living room while her children sleep on the floor beside her. The dining table is located just beside her bed. The spaces in the house is filled with many items such as her wheelchair, cabinets, clothes, refrigerator, television, and other unused items, which leaves hardly any empty space.
Patient needs to climb up several steps of stairs to go into the house and also climb down a few steps of stairs to go to the bathroom from the kitchen. Therefore, although the bathroom is quite near, the patient will usually bathe in the kitchen assisted by her sister-in-law or her children as she is too weak to go down the stairs. And when she is too weak to stand, her sister-in-law and her children will help sponge her in bed. They also help to feed her, change her clothes and also check on her medication compliance.

There is small tarred road connecting the house to the main road and the family has two motorcycles as their main transportation used by her younger brother and her son. The distance from her house to the nearest hospital (which she goes for her current treatment) is about half an hour’s drive. In order to send her for her current treatment and follow-up, her younger brother used to borrow a car from a neighbour to send her to hospital or health clinic. The approximate cost if they decide to use taxi service to and fro from her house to the hospital is about RM 40.00

Figure 1: The patient’s house
Figure 2: The kitchen in the house

Figure 3: The bathroom and toilet
3.2 Psychological environment

Madam A is a friendly person. Although she was feeling weak during the home visit, rapport was easily built and established throughout the interview. According to her, the disease has caused her to be depressed because as the disease progresses she is becoming more dependent on the help from others. In addition to having financial problems and becoming less independent, she also has issues with her elder sister which resulted in her and her family being asked to vacate the house where they were staying previously, and thus her younger brother took her and her family in. She is trying to get additional financial help from National Cancer Council (MAKNA) to add to the RM500 per month that she receives from the Social Welfare Department and Baitulmal. Her younger brother (who is working as a gardener and earns about RM 800 per month) admitted that he is having financial problems as his salary is not enough to support his sister’s medical expenses, his own family and his sister’s family. Her family know the prognosis of her condition and has accepted the fact that she is dying. Nevertheless, Madam A feels relieved as she knows that her younger brother will take care of her children if she dies. Sometimes, her friends visit her and this makes her very happy.

3.3 Behaviour and lifestyle

The disease has caused her to become weak and she spends most of her time at home lying in bed. She tried to do simple chores but lately she felt very weak and was unable to stand. Otherwise, the only times she goes out of the house is when she has to attend follow up at either the health clinic or hospital. Due to loss of appetite, she consumes very little food which usually is a spoon of rice and plain water. Thus she keeps losing weight and becomes thinner.

4.0 Belief and understanding of illness

4.1 Assessment of knowledge

Madam A has poor understanding of her disease (cervical cancer). She knows that the cancer is causing her to loss appetite and weight, and she knows that the prognosis of the disease is not favourable. However, prior to her contracting the disease, she didn’t know much about cervical cancer such as the risk factors or the indications and importance of Pap smear or HPV vaccination. Even after contracting the disease, she has very poor insight about the importance of medical treatment (such as prescribed surgery and chemotherapy) in helping her with the prognosis of the disease. However, she does know the side effects of chemotherapy such as vomiting, loss of hair and weakness. Her younger brother also seems to have similar understanding and he also has a misconception that cancer is like an infection.

4.2 Assessment of belief

She believes that she has the disease by chance since there is no other family member afflicted with the same disease. She also knows that the disease (cancer) can lead to metastasis. She also believes that chemotherapy will able to shrink the cancer that has metastasised to her bladder thus it will enable her to urinate normally again. She also believes that taking the traditional medication and controlling her sugar and salt intake (which was
suggested by her friends) can help in improve her condition. Her younger brother who has been helping her financially and socially also believes in engaging alternative treatment such as the services of a traditional healer (bomoh). He believes that the bomoh can help in improving his sister’s condition and he expressed his intention to bring her to try it.

4.3 Assessment of practice

Madam A did delay her surgical treatment. Although she eventually came for the surgery she then defaulted scheduled chemotherapy. She attributed both unconstructive practices to her financial problems. Currently she is also on traditional medication which is unknown to the author. Otherwise she seems to be compliant toward her current medication received from the hospital.

5.0 Impact of illness on patient and family

5.1 Physical impact

Madam A has become physically dependent on others to help her in her activities of daily living. When she feels well she could do simple household chores such as folding clothes and sometimes bathing herself. However when she feels not well she is bed bound. Therefore, based on Katz Index of Independence in Activities of Daily Living (ADL) she is categorized as being moderately impaired when she feels well and severely impaired when she feels not well. The family were all affected by her disease and physical limitation. Her sister in law has to take care of her alongside her children.

5.2 Emotional impact

She seems to accept her fate but seems to be very sad as she cannot work to support her family. She is also worried about her oldest son who is quitting school in order to work to help the family financially. She is grateful that her younger brother's family is helping her and her family, however she is sad about her relationship with her other sibling (i.e. her elder sister). Being a single mother, she seems to be trying her best to look positive and strong for the sake of her children. Nevertheless, her family members seem to be able to cope with situation. Her younger brother has accepted the fact that he will have to take care of his sister's children if she dies. Her children too have understood and accepted her condition and prognosis.

5.3 Economical impact

She is depressed because she is unwell to go to work and is thus losing the source of income for her family. Her eldest son is quitting school to work in order to help the family financially. Her younger brother has to take leave from work to bring her to the hospital or health clinic for treatment and follow up.
6.0 Evaluation on communication

6.1 Between patient and family members

Madam A did not have any problem in communicating with her family members except for her elder sister with whom she currently has some unresolved issues. She usually will share her concerns with her younger brother and his wife (her sister in law) but not with her children.

6.2 Between patient and relevant workers (health workers, social workers and workers from religious department)

According to her, she has no problem in communicating with workers (health workers, social workers and works from religious department) of all agencies who is attending to her. Nevertheless, relevant in-depth communication could improve to highlight some issues such as her financial problem which could contribute to better compliance to follow up treatment and a better quality of life.

7.0 Evaluation of patient’s need

7.1 Personnel support at home

The patient definitely needs support from her family members at home in different aspects such as physical, financial, and psychological support. For physical support, a family member should always be there in order to take care of her needs when she is not well. Family members need to ensure that she is compliant to medication, treatment and follow up as scheduled. They also need to prepare nutritious food and encourage her to eat. Besides that, she also needs psychological support such as being confident that someone close to her will take care of her children needs if she dies. In fact the whole household needs psychological support to cope with this tremendous stress.

7.2 Community care

Presently she is financially supported by the Social Welfare Department and Baitulmal, which amounts to RM 500 per month. Her children were given scholarship and help to finance their study from religious charity (zakat). Nevertheless, this is not enough to support her family’s daily expenses in addition to her treatment. She is applying for some additional funds from National Cancer Council (MAKNA). Ideally she also needs the help from organizations which offer palliative home care such as Hospis Malaysia. However, she needs to ask for a referral from her attending physician during her next visit.
8.0 Wellness diagnosis

Madam A has cervical cancer stage VIB which has metastasised to her lungs, ovary, urinary bladder and rectum. Several surgical interventions had been carried out to relieve symptoms and she is currently on chemotherapy. Her probable risk factors were not being immunized against HPV and use of oral contraceptive pills. In addition, it could also be associated with her poor knowledge regarding the disease and its prevention, poor insight of the importance to comply with the medical treatment once diagnosed, residing in a rural area and also the fact that she is in the low social economic group.

9.0 Wellness Intervention and Discussion

9.1 Risk associated with patient’s condition

Among Madam A’s characteristics which could possibly be associated with her disease include not being immunized against HPV, not undergoing regular Pap smear screening test and the use of oral contraceptive pills. Studies have shown that many organizations such as World Health Organization (WHO), International Union Against Cancer (UICC) and International Federation of Gynecologists and Obstetricians (FIGO) have consistently endorsed HPV vaccination as an effective cancer prevention option and the most cost-effective, particularly in developing countries where cervical cancer is a major cause of death, and screening programs are limited or absent (Basu et al, 2013, Ezat & Aljunid S, 2010).

Malaysia is one of the developing countries that fall under this group. Cervical cancer is one of the major causes of death. However in Malaysia, the HPV vaccination program was introduced as a primary prevention effort (routine immunization programme) only in 2010 for those aged 13 years and above. Although, it was reported that the full course HPV vaccination coverage for routine immunization was 87% in 2011 (ICO HPV Information Centre, 2015), Madam A was not in that cohort.

The secondary prevention should entail cervical cancer screening. Although the cervical cancer screening program is available for free in Malaysian health facilities since 1995, the uptake is very low which is about 12 to 47 % (Nor Hayati et al, 2009, Zarida, 2014). Studies show that there are many barriers to cervical screening such as low awareness and knowledge, shyness and most (95.9%) did not know of the interval (Al-Dubai 2010). The knowledge level and the uptake of screening were strongly associated with the level of education and the household income (p<0.05) (Nor Hayati et al, 2009). In this patient, she did her Pap smear in 2002 and most probably Madam A falls under the group who did not know of the interval. She did not do it at the recommended interval (every 3 years) and thus presented with the disease at late stage. This was also associated with poor knowledge about the prevention of the disease and also being in the low socioeconomic group and residing in a rural area.

The other probable risk was the fact that, Madam A was on oral contraceptive for 6 years and she stopped 8 years ago. Studies have shown that the use of oral contraceptive could increase the risk of cervical cancer. The relative risk for 5 or more years’ use versus never use is 1.90 (95% CI 1.69–2.13) and increasing duration will increase risk. However the risk declines
after use ended, and by 10 or more years had returned to that of never users (International Collaboration of Epidemiological Studies of Cervical Cancer, 2007)

Lastly, Madam A claimed that her husband was having other sexual partners while being married to her. Thus, there could be a possibility of Madam A acquiring the HPV infection through her husband. A meta-analysis of forty-one studies observed that the number of sexual partners was associated with cervical cancer (OR=1.77, 95%CI 1.50-2.05) having multiple sexual partners is a potential risk factor of cervical cancer (Zhi-Chang et al, 2015).

9.2 Wellness intervention that has been conducted

9.2.1 Health education about the disease, prognosis and importance to adhere to treatment

Madam A came to the hospital late thus by the time she was diagnosed, the cancer was already at a very advanced stage. Nevertheless, she and her family members need to know that although the prescribed treatment will not cure the disease but adhering to it will help in reducing her symptoms and increasing her quality of life. Therefore, it is proposed that she and her family members to be educated about the disease, the prognosis and the importance to adhere to treatment. Understanding the prognosis of the disease and the importance of adhering to treatment could positively influence her and her family. The pros and cons of using traditional medicine should also be discussed with the patient and her family. The exact type and content of the traditional medicine must be known so as to make sure it is not contraindicated with the current medical treatment. Agencies such as National Cancer Council (MAKNA) can assist the patient’s family in further understanding cancer. This is done by oncology-trained personnel available at MAKNA (MAKNA , 2015). However the challenge is it is provided online which the patient and her family obviously do not have.

Health education could be extended to her family members and her community with the emphasis on prevention such HPV vaccination and Pap smear screening.

9.2.2 Intervention to improve financial support

Madam A’s treatment was delayed and interrupted due to her various financial and social problems. Currently, Madam A and her family receive some financial support from relevant organizations (Social Welfare Department, Hospis Malaysia, Baitulmal, and zakat). However, the financial help from the current organizations could be revised and increased and in addition efforts to obtain financial help in cash or in kind from other avenues such as the National Cancer Council and Hospis Malaysia could be explored. Advice should be given to the family to encourage her son to continue his study as it will help with the family’s economy in the long run.

9.2.3 Intervention to improve home care

Hospis Malaysia consists of a team of palliative care personnel (doctor, nurse, pharmacist and occupation therapist) and their programme includes not only providing monthly allowance but also medical equipment, medication and ancillary item for one who faces financial problems (Hospice, 2015). The team could work together to assess Madam A’s physical and psychological condition and to find relevant effective solutions for her. However there are only two Hospis in Malaysia, one is in Cheras, Selangor and the other in
Seremban, Negeri Sembilan. Probably the Hospis in Seremban could be contacted to help Madam A to improve her quality of life by providing suitable home care facilities and service.

9.2.4 Intervention to improve psychological support

Psychological support from family members is very important for cancer patients. They must encourage her to be positive about her treatment and her life. Family issues should be managed amicably in order for the patient to have peace of mind. So far the support from her younger brother in ensuring that her children will be taken care of has put the patient at ease.

10.0 Conclusion

This case study is an example of late stage presentation of cervical cancer subsequently followed by poor compliance to treatment which led to poor quality of life and thus probably a poor 5-year survival rate. Poor knowledge and low socio-economy could be the main factors leading to Madam A’s scenario. Nevertheless, interventions to increase her understanding and referral to a few relevant agencies could help in improving her quality of life. Finally it is recommended that the gap in HPV vaccination uptake and cervical cancer screening coverage which could have resulted from an individual being in low socio-economy could be overcome by an organized and comprehensive national cervical cancer control program.

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References


