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CHALLENGES AND ACHIEVEMENTS IN CANCER TREATMENT AT THE CANCER CENTER OF BAI CHAY HOSPITAL, QUANG NINH

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ABSTRACT

For patients to enjoy better quality medical services and save costs, in the coming time, Quang Ninh-Bai Chay hospital has also focused on technology applications and investment to support treatment for cancer patients. Our study objectives: To show analysis of cancer treatment in Bai Chay hospital Quang Ninh and summarize previous studies in other nations. By using methods of A cross-sectional descriptive study using the FACT- Hep questionnaire. Our study results and conclusions: Up to 50% of patients, the overall quality of life is affected to a great extent and greatly: In which, patients in stage 2 become higher proportion than stage 1. for symptom, the highest ratio of 35,7% belong to patients (with not influence).And then, the lowest ratio of 12,9% is belong to patients with very much influence.

Keywords: patients, treatment, liver cancer, technology , Bai Chay hospital

I. INTRODUCTION

According to statistics, Liver cancer is the fourth main cause of cancer-related death worldwide, and according to estimations of the World Health Organization, more than one million people will die from this disease in 2030 (WHO, 2016).

And VT Binh, DTN Huy. (2021) suggests solutions for Treatment of Patients at Hospitals in Vietnam and supported by (PTB Ngoc et al, 2021; VT Binh, DTN Huy, 2021). Therefore, the quality of life of liver cancer patients is a health issue of increasing concern, in order to improve the quality of life for patients, we conduct a research on the topic: "Evaluating quality of living of liver cancer patients being treated at the cancer center of Bai Chay hospital, Quang Ninh province in 2019".

Research questions:

Question 1: Present previous studies of cancer treatment?

Question 2: What are analysis of cancer treatment in Bai Chay hospital Quang Ninh?

Next we analyze related studies in below table:

Table 1- Summary of previous studies

Authors	Year	Content, results
Nishida et al	2006	On the other hand, modifications such as histone 3 lysine 9 acetylation (H3K9) regulate the structure of histone and modulate transcriptional factors binding with target gene promoters. Human HCC cells (HepG2) in culture display a nucleosome density that is relatively lower than normal cells, in addition to H3K9 acetylation; indicating that H3K9 acetylation may play an important role in nucleosome relaxing and in tumorigenesis initiation.
Inagaki	2016	Another study showed the importance of H3K9 acetylation that includes CBP/*p*300 analysis which has histone acetyltransferase (HAT) activity and is involved in many cellular processes.

		Results suggest that the decrease in CBP/*p*300 reduces the acetylation of H3K9, and this has an important role in malignant transformation, proliferation, apoptotic, and invasion in HCC.
Zhai & Sun	2013	Therefore, it is urgent to developing new molecules with pharmacological efficacy and safety
Nguyen Thi Minh Chinh, Pham Thi Bich Ngoc, Nguyen Minh Loi, Dinh Thi Thu Hang, Dinh Tran Ngoc Huy, Pham Van Tung	2021	Roles of nurses and nursing is important in supporting cancer patient treatment
Moreno et al	2021	the main therapies approved for the treatment of HCC patients, first- and second-line therapies, are described in this review. Moreno et al (2021) pointed that Liver cancer is one of the main causes of death related to cancer worldwide; its etiology is related with infections by C or B hepatitis virus, alcohol consumption, smoking, obesity, nonalcoholic fatty liver disease, diabetes, and iron overload, among other causes. Several kinds of primary liver cancer occur, but we will focus on hepatocellular carcinoma (HCC).
Anh, B.T	2019	The quality of life of liver cancer patients is a new issue that is increasingly concerned by patients as well as health care workers. In Vietnam, due to economic conditions and

		the rapid increase in liver cancers, what is the quality of life of liver cancer patients? There are no studies evaluating the quality of life of patients
Nguyen Trong Hung et al	2022	50% of patients are affected much and much in the functional and symptomatic domains. People with underlying medical conditions are greatly affected by quality of life (21.3%), people without underlying diseases, quality of life is not affected (40.5%).

(source: author synthesis)

II. SUBJECT AND METHODOLOGY

First is Place, time, research object

- Research subjects: Patients diagnosed with liver cancer are being treated at Cancer Center - Bai Chay Hospital - Quang Ninh province.

Second is Research period: from June 2019 to May 2020.

Next author will use research method:

Study Design: A cross-sectional descriptive study.

III. RESEARCH RESULTS

Up to now, Bai Chay Hospital has gradually mastered the most modern cancer treatment methods such as surgery, chemotherapy, radiation therapy, embolization, tumor burning with microwave technology, palliative treatment, and palliative care. destination...

As a result, doctors can combine these methods in multimodal treatment to increase success, preserve organs and organ functions, improve survival time and improve quality of life. living for cancer patients.

In order for patients to enjoy better quality medical services and save costs, in the coming time, the hospital's doctors and nurses will continue to deploy advanced techniques to improve the quality of medical examination and treatment; develop a plan to apply for investment in new equipment, such as PET/CT machine system.

Liver tumors, thyroid tumors now tend to increase rapidly in number of patients and tend to be younger in age. Therefore, the patient's need for high-quality, minimally invasive treatment is increasingly being prioritized.

Burning thyroid benign tumors, liver malignancies by microwave technology is a modern and advanced minimally invasive treatment method following international trends with many outstanding advantages such as safety, accuracy, aesthetics and high efficiency. Patients do not have to suffer pain from major incisions, have a short recovery time (only about 24 hours after the intervention, they can resume

normal activities), reduce complications and severe sequelae from major surgeries.

Figure 1 - *Evaluation of the impact on the overall quality of life of patients*

Disease stage \ Influence level		Not		Little		Much		Very much	
		SL	%	SL	%	SL	%	SL	%
Function	Stage 1 (n=70)	26	37,1	18	25,7	9	12,9	17	24,3
	Stage 2,3,4 (n=34)	6	17,7	3	8,8	8	23,5	17	50,0
	Total (n=104)	32	30,8	21	20,2	17	16,3	34	32,7
Symptom	Stage 1 (n=70)	25	35,7	18	25,7	18	25,7	9	12,9
	Stage 2,3,4 (n=34)	5	14,7	4	11,8	12	35,3	12	38,2
	Total (n=104)	30	28,8	22	21,2	30	28,8	22	21,2
CLCS Total	Stage 1 (n=70)	24	34,3	19	27,1	16	22,9	11	15,7
	Stage 2,3,4 (n=34)	7	20,6	2	5,9	12	35,3	13	38,2
	Total (n=104)	31	29,8	21	20,2	28	26,9	24	23,1

(source: Hung, N.T et al, 2022)

Analysis:

We see from above figure that the highest ratio of 37,1% belong to patients in stage 1 (with not influence)

And then, the lowest ratio of 12,9% is belong to patients in stage 1 with much influence

Moreover, for symptom, the highest ratio of 35,7% belong to patients (with not influence)

And then, the lowest ratio of 12,9% is belong to patients with very much influence.

Up to 50% of patients, the overall quality of life is affected to a great extent and greatly: In which, patients in stage 2 become higher proportion than stage 1.

The majority of cancer patients come to the hospital at a late stage, the cancer cells have grown strongly and have spread, invaded the surrounding areas, metastasized into the vascular system, lymph nodes and organs, so they are not treated. Treat with only one, but must combine many methods. In particular, surgery is one of the most important methods in the principle of multimodal cancer treatment to help radically treat, improve quality of life, prolong life for

V. CONCLUSION

patients with cancer diseases. gastrointestinal cancer, stomach cancer, gallbladder cancer, liver cancer... and other cancers such as cervical cancer, thyroid cancer…

source: benhvienbaichay.vn, access date 1/6/2022)

Lessons from other countries in cancer treatment:

Liu et al (2015) specified that primary liver cancer, mostly hepatocellular carcinoma, remains a difficult-to-treat cancer. Incidence of liver cancer varies geographically and parallels with the geographic prevalence of viral hepatitis. A number of staging systems have been developed, reflecting the heterogeneity of primary liver cancer, regional preferences, and regional variations in resectability or transplant eligibility. Multimodality treatments are available for this heterogeneous malignancy, and there are variations in the management recommendations for liver cancers across specialties and geographic regions. Novel treatment strategies have merged with the advance of new treatment modalities

There have been a number of staging systems for the prognosis of HCC, including the commonly used tumor-node metastasis (TNM), Okuda, and Barcelona Clinic Liver Cancer (BCLC) systems, as well as the Cancer of the Liver Italian Program (CLIP) score (Edge et al. 2010). The multiplicity of these staging systems reflects the heterogeneity of HCC, regional preferences, and regional variations in resectability or transplant eligibility. Nevertheless, these systems do incorporate important determinants of survival including the size of the tumor, the severity of underlying liver disease, tumor extension into adjacent structures, and tumor metastases. Apart from the American Joint Committee on Cancer (AJCC) TNM system, newer staging systems such as CLIP, BCLC, Groupe d'Etude du Treatment du Carcinome H'epatocellulaire (GRETCH), Chinese University Prognostic System (CUPI), and Japan Integrated Staging (JIS) systems have included patient-dependent variables such as the severity of cirrhosis and a tumor-dependent variable regarding the extent of the HCC (Kudo et al. 2004)

Next, Liver (2019) presented in Korea, Hepatocellular carcinoma (HCC) is the fifth most common cancer globally and the fourth most common cancer in men in Korea, where the prevalence of chronic hepatitis B infection is high in middle-aged and elderly patients. In patients with early HCC, addition of MRI with Gd-EOB-DTPA to multiphase CT led to the detection of additional small nodules in 16.4% of patients and stage migration in 13.3%, which decreased the risk of HCC recurrence and lowered the mortality rate by 28% and 35%, respectively.

Figure 2- Nurses and cancer patient treatment at Bai Chay Hospital

(source: author synthesis)

Research limitation

Authors can expand study for other markets

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Conflicts of interest

There is no conflict of interest

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