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IJAPC

e ISSN 2350 0204

VOLUME 12 ISSUE 1 2020

GREENTREE GROUP PUBLISHERS (GGP)

Int J Ayu Pharm Chem

CASE STUDY

www.ijapc.com

e-ISSN 2350-0204

Mediastinal Lymphoma treated with *Vardhamana Pippali Rasayana* & *Haridra Dhuma*: A Single Case Study

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ABSTRACT

We describe a patient of productive cough, associated with breathlessness and anorexia, diagnosed with Mediastinal Lymphoma, who was treated with the Vardhamana Pippali Rasayana, Haridra Dhuma, and Oral Medication, where notable change was identified in the symptoms and it was observed that the size of mediastinal Lymphoma significantly reduced on CT Thorax.

KEYWORDS

Mediastinal Lymphoma, Vardhamana Pippali Rasyana, Haridra Dhuma

Greentree Group Publishers

Received 24/10/19 Accepted 28/12/19 Published 10/01/2020

INTRODUCTION

Malignancies of lymphoid cells run from the most sluggish to the most aggressive human malignancies. These tumors emerge from cells of the invulnerable framework at various phases of separation, coming about in an extensive variety of morphologic, immunologic, and clinical findings. Chronic lymphoid leukemia (CLL) is the most predominant type of leukemia in Western nations. It happens generally as often as possible in more seasoned grown-ups and is exceedingly uncommon in kids[1]. CLL is more common in men than women. The etiologic elements for run of the CLL are obscure. Contrary to CLL, Acute lymphoid leukemia's (ALLs) are transcendently malignancies of kids and youthful grown-ups. Environmental causes, including certain mechanical exposures, introduction to farming chemicals, and smoking, may expand the danger of building up ALL as a grown-up[1]. Diffuse large B-cell lymphoma is the most common type of non-Hodgkin's lymphoma, standing for one-third of all cases. This lymphoma makes up the majority of cases in past clinical trials of "aggressive" or "intermediate-grade" lymphoma.

Diffuse lymphoma can present as nodal lymphoma or extra nodal lymphoma. In other words to say they can only limit themselves to the lymph nodes or can diffuse to other lymphatic tissues. More than 50% of patients will have some site of extra nodal involvement. Patients extra nodal lymphoma with prominent mediastinal involvement are sometimes diagnosed as a separate subgroup having primary mediastinal diffuse large B-cell lymphoma. This latter group of patients has a female transcendence (66%). The following case presents a 65-year-old female complaining of productive cough, breathlessness for 4 years and right shoulder pain associated with Anorexia.

PATIENT

The patient (IN), a 65 year old female housewife, was referred to the Kayachikitsa (Ayurveda Medicine) Department of the Sri Dharmasthala Manjunatheshwara Ayurveda Hospital, Udupi in 2018 for assessment of her respiratory difficulties. She had HTN & DM-II since 8 years as comorbid condition for which she was taking regular medication and was on routine follow up. She reported that she was otherwise normal in her daily life. Four years before gradually she developed cough, which was initially dry and then later on became productive, with moderate mucoid sputum, which used last for few days and was treated by her family doctor with tablets, capsules & syrup whose details are not known by the patient. This used to

come in episodes often, sometimes she also had breathlessness which used to persist throughout the episode, sometime more sometime less. These foresaid complaints usually worsen in evening hours and eased by consumption of medication, but mild chest discomfort like catching type was felt continuously even when she did not have above said complaints. She developed right shoulder pain gradually which was continuous pulling type of mild pain which increased on lifting moderate weight and was eased by rest and applying some coconut oil to the shoulder. During this course she also had gradual development of anorexia. She did not report any history of fever, weight loss & chest pain.

Apart from these complaints IN reported only minor degree of difficulty in terms of chest discomfort and shoulder pain in doing her regular work such as preparing food, washing utensils, taking bath, cleaning house. She is nevertheless, able to do all work which does not have physical exertion. She had noticed no difficulties in walking on plane surface or mild steep areas. She was able to carry out her work as a housewife with no remarkable loss of efficiency.

EXAMINATION

SUBJECTIVE

Mrs IN, on examining for the Range of Movement of the Right shoulder, she felt moderate pain in external rotation, abduction and circumduction of the right shoulder joint.

OBJECTIVE

She had blood pressure of 160/90 mm of Hg, with pulse rate of 80/min, with no Pallor, Icterus, Clubbing and no any palpable lymph node over the body. On auscultation she had normal vesicular type of breathing respiratory rate 23 per minute with symmetric movement and resonant on percussion. She also had expiratory crepitation's in Right & Left infra scapular region. Cardio vascular system examinations were also within normal limits with Heart Rate of 82/min.

INVESTIGATION

Blood Investigation showed Hb-12.25 gm%, total leucocyte count-11,700 cells/cu. Mm, Neutrophils-77%, Lymphocyte-16%, Eosinophils-6%, Monocytes-1%, Basophils-0%, ESR-66 mm/1hour, RBS-126mg/dl, PPBS- 210 mg/dl, Renal Function Test, Fasting Lipid Profile & Liver Function Test were within normal limits. Urine investigated revealed Urine Sugar-1.0%, Albumin- Nil & Microscopic examination came out normal.

Her chest CT on 28 December 2017 suggested-

1. Multiple enlarged lymph nodes noted in

the pretracheal, subcarinal, aortopulmonary window, pre-aortic and in the bilateral hilar region largest measuring 1.9*1.7 cm in the pretracheal region.

2. There is thickening of bronchovascular interstitium bilaterally. Also, there are focal areas of interlobular septal thickening in the peripheral portion of bilateral basal region of the lower lobes and left upper lobe. Possibility to be considered are:

1. Sarcoidosis 2.Lymphoma.

DIFFERENTIAL DIAGNOSIS

A woman was referred to our hospital for productive cough, associated with Breathlessness and anorexia, which lasted for 4 years associated with mild chest discomfort (catching type). Blood picture revealed HB-12.25 gm%, Total Leucocyte count-11,700 cells/cu. Mm, Neutrophils-77%, Lymphocyte-16%, Eosinophils-6%, Monocytes-1%, Basophils-0%, ESR-66 mm/1hour, RBS-126mg/dl, PPBS- 210 mg/dl, Renal Function Test, Fasting Lipid Profile & Liver Function Test were within normal limits. Urine investigated revealed Urine Sugar-1.0%, Albumin- Nil & Normal on Microscopic examination.

She had multiple nodular lesions on both pretracheal, subcarinal, aortopulmonary, pre-aortic area largest measuring 1.9*1.7on CT imaging. Our differential diagnoses were lymphoma, sarcoidosis, intracellular infection and invasive fungal infection. As she did not present with mucopurulent or purulent sputum, bacterial infection was ruled out. To arrive at a definitive diagnosis among the diseases considered, CT scan is the mainstay. We finally reached a diagnosis of mediastinal lymphoma.

TREATMENT

After admission to our hospital, Cap.Cytocruel one capsule twice a day after food, Tab. Nityananada Rasa 250 mg two tablets thrice a day after food. Dhanvantari Kasa Sudha Kalapa 1 tsf three times a day after food, Haridra Dhupana one daily & Vardhamana Pippali Rasayana in the form of capsule starting with two capsule at early morning empty stomach, increasing 3 capsule on the next, thus increasing two capsules and three capsules on alternate days & reaching up to 25 capsules and tapering in the prescribed manner of reducing 3 capsule and 2 capsules on alternate days and completion of course which is followed by maintenance of the same as 1 capsules three time a day.

OUTCOME AND FOLLOW-UP

As patient came with investigative based diagnosis of extra nodal lymphoma admitted at our hospital on 22nd January. On arrival she exhibited the signs & symptoms of the respiratory system involvement mentioned in the patient section, so she was started with Vardhamana Pippali Rasayana, Shamanaoushadhi, Haridra dhuma for

inhalation. Her symptoms started reducing from 2nd day itself. By the end of the week it was observed that crepitations as well as quantity of sputum also reduced remarkably. Hence we continued the same treatment and on 7th February 2018 a Repeat CT Thorax was done to assess the improvement in the pathological process. The CT Thorax report is as follows (Figure 1):

1. There is thickening of the bronchovesicular interstitium bilaterally. Also there are areas of interlobular septal thickening in the peripheral portion of bilateral basal region of lower lobes and left upper lobe (The extent appears to have reduced compared to previous scan)
2. The extent of Mediastinal Lymphadenopathy is significantly reduced compared to previous scan largest measuring 1.2*0.9 cm (which was initially1.9*1.7 cm).
3. Possibility of Sarcoidosis appears likely

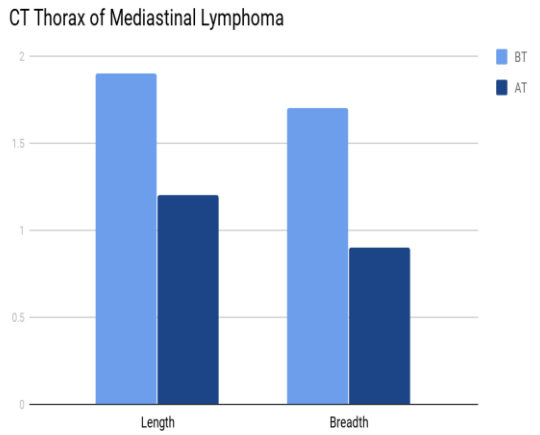

Figure 1 Changes in the size of the Medaistinal Lymphoma

DISCUSSION

These neoplasms arise from lymphoid tissues, and are diagnosed from the pathological findings on biopsy as Hodgkin or non-Hodgkin lymphoma. The majority are of B cell origin. Lymphoma occurring only in the mediastinum is originally considered a subset of diffuse large B-cell lymphoma[1]. This disease is usually confined to the mediastinum. It can be locally aggressive, including progressing to produce a superior vena cava obstruction syndrome or pericardial effusion. About one-third of patients develop pleural effusions, and 5–10% can disseminate widely to kidney, adrenal, liver, skin, and even brain. The disease affects women more than men with ratio of 1:2-3, and the median age is 35-40 years. It is distinguished from nodular sclerosing Hodgkin's disease by the paucity of normal lymphoid cells and the absence of lacunar variants of Reed-Sternberg cells. More than one third of the cases express same genes that are expressed in diffuse large B-Lymphoma and in Hodgkin's disease suggesting a possible pathogenetic relationship between the two entities that affect the same anatomic site. Methotrexate, leucovorin, Doxorubicin, Cyclophosphamide, Vincristine,

Prednisone, and Bleomycin and Rituximab are effective treatments, have showed 5-year survival of 75–87%. Dose-adjusted therapy with prednisone, etoposide, vincristine, cyclophosphamide, and doxorubicin plus rituximab gives 5-year survival in 97%. A role for mediastinal radiation therapy has not been definitively identified, but it is frequently used, especially in patients whose mediastinal area remains positron emission tomography after four to six cycles of chemotherapy[2]. As the available treatment have limitations of their own, Rasayana can be beneficial in subsidence of the disease.

Our patient was diagnosed with mediastinal lymphoma radiologically with presenting symptoms of productive cough with mucoid sputum, associated with chest discomfort and Right shoulder movement. She was treated with Vardhamana Pippali (Piper longum) which is Vyadhihara Rasayana (Disease specific) along with Haridra Dhupana (Curcuma longa) and shamanoushadhi (Palliative treatment) for a period of 20 days[3]. Assessment after 17 days of intervention with foresaid treatment showed a good response in terms where crepitation's were significantly reduced and symptoms such as reduced cough with minimum expectoration and on radiological investigation with repeated CT thorax revealed 41.94% reduction in the size of the lymphoma. Thus it can be considered that administration of the drug through various route which are nearest to for maximum action can be selected wherein Turmeric inhalation through respiratory route and Pippali administration through oral route found beneficial in this case of lymphoma. Effective and safe Herbal treatment can be expected with further study in this regards.

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