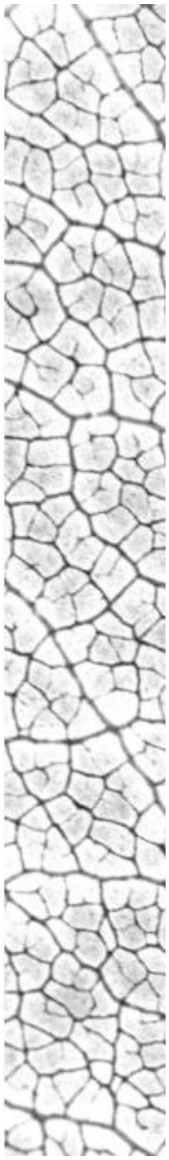

EurAsian Journal of BioSciences
Eurasia J Biosci 14, 3107-3114 (2020)

Case report of the pathogenesis disease benign papillary mesothelioma

Afrita Amalia Laitupa [1], Winariani Koesoemoprodjo [2*], Dewa Made Artika [3]

[1] Faculty of Medicine, University of Muhammadiyah Surabaya, Surabaya, INDONESIA
[2] Department of Pulmonology and Respiratory Medicine, Faculty of Medicine, Universitas Airlangga - Dr. Soetomo Teaching Hospital, Surabaya, INDONESIA
[3] Department of Internal Medicine, Division of Lung, Faculty of Medicine, Universitas Udayana - Sanglah Teaching Hospital, Denpasar, INDONESIA
*Corresponding author: winariani_07@yahoo.com

Abstract

Background: Mesothelioma is a disease that attacks the mesothelium cells or the external part of the organ. Mesothelioma often attacks pleura of the lung organs. One of the development of mesothelioma is Benign Papillary Mesothelioma. This disease is a rare disease. Benign Papillary Mesothelioma is a cancer that caused by the Simian-40 virus (SV-40) and can be induced by exposure to asbestos. **Purpose**: This study aimed to record the pathogenesa of Benign Papillary Mesothelioma disease in a female patient. **Methods**: This study used the recording data of patient from the clinical data, radiological and histopathological as the supporting data. In patient's history, the patient's condition experienced progression by a pleural effusion, SVKS and a high risk of thrombosis. That invasion was examined by the results of pleural fluid analysis, pleural fluid cytology and chest X-ray CT with contrast. **Result**: In patients with tumors, an emergency could occur if it did not treated immediately and caused a life threatening. The drugs management of patients with SVKS and the risk of thrombosis can help reduce patient complaints. **Conclusions**: Mass biopsy was also conducted by using HE staining, where the diagnosis results told the patient has chronic pleurisy, pulmonary edema and congestion. Patients were planned for platinum-based chemotherapy.

Keywords: papillary mesothelioma, pathogenesis, case report

Laitupa AA, Koesoemoprodjo W, Artika DM (2020) Case Report of the pathogenesis disease benign papillary mesothelioma. Eurasia J Biosci 14: 3107-3114.

INTRODUCTION

Mesothelioma is a rare type of pleural cancer and originates from mesothelium cells, a protective layer that covers many internal organs of the body. Mesothelioma is often caused by exposure to asbestos ingredients (Cancer Research UK Mesothelioma risk and causes. Cancer help.org.uk. 2010). The WHO classification of Mesothelioma by year 2004 is divided into 5 types histologically, namely epitheloid, sarcomatoid, desmoplastic, biphasic and other variants. "Well-differentiated papillary mesothelioma" is one type of mesothelioma from the other variant type. In the WHO classification by year 2004, "well-differentiated papillary mesothelioma" or benign papillary mesothelioma is a very rare and typical mesothelial tumor that has a soft cytological form, fat papillary architecture, and superficial spread tendency without invasion (Sterman, Litzky, Albelda, 2008). Papillary mesothelioma benign is often found in the female's peritoneum and in the age of fourth or fifth decade (Ribeiro, et al. 2013).

According to data from the National Cancer Institute Surveillance, Epidemiology and End Result (SEER), the incidence rates of mesothelioma in 2008 was around 1 per 100,000 people in the United States, or around 2,000-3,000 new cases every year. The peak incidence of mesothelioma had been estimated to occur in the United States. There has been a gradual decrease in the incidence of mesothelioma since 2008. Although the US incidence rate has reached the peak, it is estimated that the incidence of mesothelioma will continue to increase internationally. For example, the peak incidence in the UK is expected to occur in 2015, as a country that is late to implement the restrictions on the use of asbestos, compared to the United States. In developing countries where restrictions on the use of asbestos have not been maximally applied, the incidence of mesothelioma can continue to increase (Chen, & Pace, 2012). Next, we present a case of papillary mesothelioma benign disease.

Received: February 2019
Accepted: March 2020
Printed: September 2020

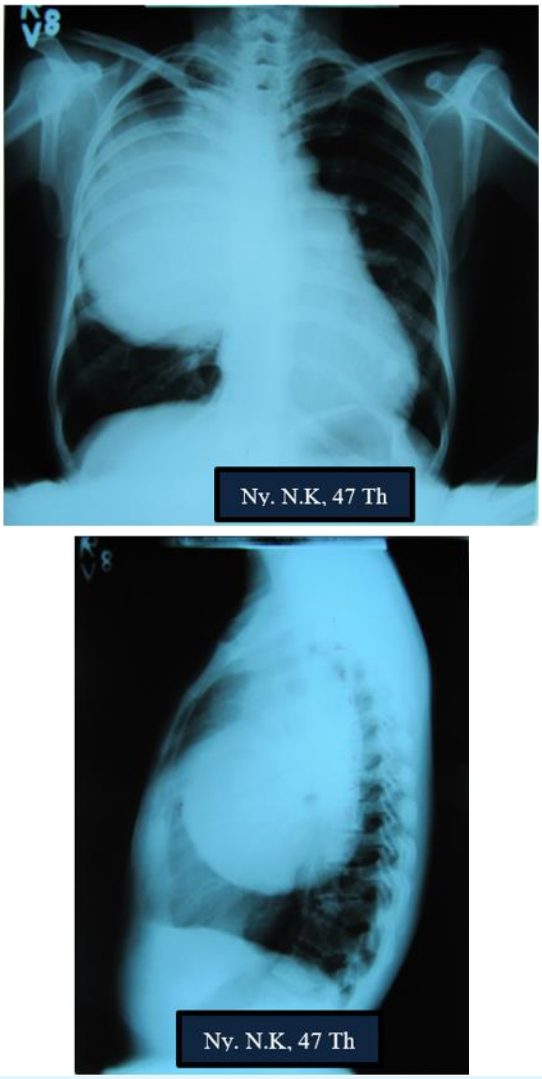

Fig. 1. Thoracic Photos of Patients in 2011. On chest X-ray, there was a picture of a suspected mass in the right lung, with a differential diagnosis of the mediastinal mass and pleural mass. There was an image of compression in anterior corpus of thoracic vertebrae 11

CASE REPORT

A 47-year-old woman referred from the RS Negara came with complaints of severe short breath that disrupted her daily activities. Patient also complained of long time coughing and relapsed approximately during 5 years with white phlegm that was difficult to cough up. She experienced a decreased appetite and weight loss of 20 kilograms since 2 years ago. The patient complained her right chest was pain, heavy head, and face that felt a little swollen since a week ago. Patient is a housewife but sometimes works in a food packaging section for home industry if additional energy is needed. The patient's husband is a heavy smoker and works at the tire manufacturing site. In 2012 patient was diagnosed with a benign lung tumor and suggested surgery but the patient refused. During the period of 2012 to 2014 patient was treated alternatively by consuming herbal concoction drinks regularly, but patient did not know the content of the ingredients.

Based on the results of the physical examination, it was found that the body condition was weak, breathing frequency was 30 x / minute, tachycardia (pulse 124 x / minute) and normal blood pressure (tension 110/80 mmHg). On examination of the head and the neck, there was facial edema, no lymph node enlargement, jugular venous pressure was still within normal limits. On physical examination, a single S1 and S2 were obtained, there was no murmur or gallop. On thoracic examination, in the inspection was found right asymmetrical breath movements left behind, the palpation felt decreased in two-thirds of the right hemithorax, there was a dullness in percussion on the right two-thirds of the hemithorax and in the auscultation there was a decreased vesicular sound in two thirds of the right hemitorax without additional breathing sounds. Abdominal examination and extremities were not detected.

At the end of 2011 the patient had a chest X-ray done with the results of there was a mass in the right lung, with a differential diagnosis of the mediastinal mass, pleural mass and anterior corpus compression of the thoracic vertebra 11. Contrast CT scan was also performed in 2012, with an impression of minimal fibrotic malignancy in right lung and thoracic spondylosis. The transthoracic biopsy examination was performed twice with the first results of an atypical cell, not eliminating a malignancy and the second one obtaining a morphological images in accordance with benign papillary mesothelioma. The result of the CEA examination that had been done was 1.48 ng / ml.

When the patient visited on September 3, 2014, the evacuation was carried out of 400 cc of pleural fluid and an analysis of pleural fluid and pleural fluid cytology were performed. On the analysis of pleural fluid was positive in the Rivalta test, 938 IH / mL LDH, 4.81 g / dL total protein, 94 mg / dL glucose, 146 / mm^3 cell count mononuclear 70 / mm^3 dominant and 30 / mm^3 polymorph nuclear, on macroscopic red colour, negative clot with positive blood while erythrocytes in large quantities are found microscopically. Pleural fluid cytology was obtained with reactive mesothelial hyperplasia and there was no malignant cells were found in the preparation reading. Patients was also examined with CT scan in contrast, resulted there was a suspected mass in anterior mediastinal, superior, and right medius (differential diagnosis with right pulmonary mass) that pushed the right superior vena cava and right pulmonary artery, accompanied by pneumonitis and right lung collapse, right pleural effusion. If the result was compared to the CT scan of year 2011, the size and description of the lesion were relatively similar. Examination of blood gas resulted a mixed respiratory acidosis-metabolic pH 7.38, pCO2 64 mmHg, 47 mmHg

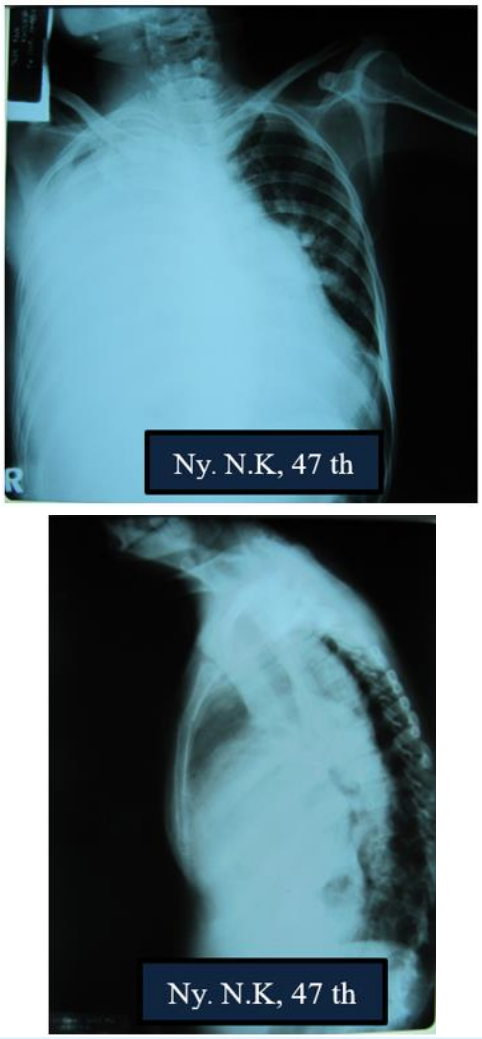

Fig. 2. Chest X-ray of the patient before pleural fluid evacuation in 2014

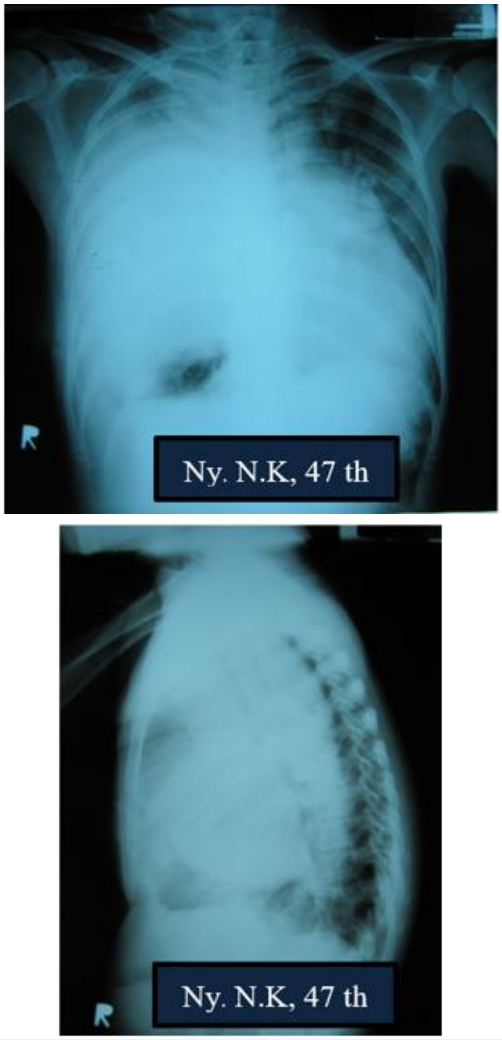

Fig. 3. X-ray of the patient after pleural fluid evacuation in 2014

pO2, BE 12.8 mmol / L, HCO3-37.9 mmol / L and SO2 82%.

There was a mass in medius lobe of the right lung with multiple nodules in left lung, suspected as the metastatic process. There was a massive pleural effusion in the right lung and compression fracture in thoracic vertebral 11, suspected as the metastatic process.

There was a mass in medius lobe of right lung with multiple nodules of left lung, suspected as of the metastatic process. There was a pleural effusion in right lung, if it was compared to previous chest X-ray, it was relatively decreased. There was a compression fracture in thoracic vertebral 11, suspected as the metastatic process.

There was an image of suspected mass in superior mediastinum, anterior and right medius (differential diagnosis of mass in right lung) which pushed the superior vena cava and right pulmonary artery, accompanied with pneumonitis and right lung collapse. There was a pleural effusion in right lung which is partially encapsulated. When compared with previous CT scans the size of the lesion was relatively similar.

For the treatment of SVKS, we treated patient with symptomatic therapy, namely oxygen, head elevation, fluid restriction, diuretics and corticosteroids. Patient improved with this therapy. We also gave anticoagulant therapy to prevent the possibility of thromboembolism. The patient performed thoracotomy and planned for resection but failed because the tumor attached to the right hilum of the lung was refined so that only a mass biopsy was conducted. Mass biopsy was done and using HE staining with the results of chronic pleurisy, pulmonary edema and congestion and no signs of malignancy were found in this preparation. Patient was planned for platinum-based chemotherapy.

DISCUSSION

Mesothelioma is a rare type of pleural cancer that originates from mesothelium cells, a protective layer that covers many internal organs of the body. Mesothelioma

is most often caused by exposure to asbestos ingredients (Cancer Research UK Mesothelioma risk and causes. Cancer help.org.uk. 2010). The Simian-40 virus (SV-40) is reported acting as a cofactor in the development of mesothelioma (Moore, Parker, & Wiggins, 2008). Mesothelioma is histologically divided into 5 based on WHO 2004 classification, namely epithelioid, sarcomatoid, desmoplastic and biphasic and other variants. Well-differentiated papillary mesothelioma is one type of mesothelioma from other types of variation. In the WHO 2004 classification, "well-differentiated papillary mesothelioma" or benign papillary mesothelioma is a very rare and a typical mesothelial tumor that has a soft cytological form, fat papillary architecture, and superficial spread tendency without invasion (Sterman, Litzky, Albelda, 2008).

Epithelioid type is the type of mesothelioma which has the most variations of histological shape such as tubulopapilar, glandular / micro glandular, and solid sheet-like pattern. Sarcomatoid also has many variations, but the most common are fibroblastic-like spindle cells arranged in storiform, fascicular or arbitrary patterns that mimic the shape of a fibro sarcoma. Desmoplastic mesothelioma, by definition, has dense collagen tissue with atypical cells arranged in storiform or "pattern less" patterns. This pattern must consist at least 50 percent of the tumor. Whereas biphasic mesothelioma must have two patterns such as epithelioid and sarcomatoid components (Chen, & Pace, 2012; Sterman, Litzky, Albelda, 2008). Benign Papillary Mesothelioma is characterized by papillae, most of which consist of fibro vascular with a fat core which is lined by a soft layer that is evenly distributed in the cuboidal mesothelial cells that radiate on the pleural surface. Basal vacuoles may be present in the cell layer. Striking nucleoli and mitotic features are not obtained. Positive surface cells on staining as mesothelial markers.

Benign papillary mesothelioma is a tumor that has a slow clinical process. These tumors have low malignant potential and no invasion, but have been reported in several studies that there has been limited invasion and histological changes towards malignancy over several years of travel. These tumors occur mostly in the peritoneum, especially in women aged between 23-75 years (median, 47 years; on average, 48.6 years) (http://www.iarc.fr/en/publications/pdfs-online/pat-gen/bb10/bb10-chap2.pdf). Bürrig et al. described the first change in malignant transformation in a patient with papillary mesothelioma benign after 5 years of diagnosis until the patient died. The patient's autopsy showed changes in the histology of papillary mesothelioma benign to malignant mesothelioma (Burrig, 1990). Höllinger and Gaeng reported a case of a peritoneal benign papillary mesothelioma that spreaded to the pleura after 3 years of being diagnosed with the disease. From the biopsy results, there was a histological picture that lead to malignancy when compared with the previous histology of peritoneum (Höllinger, & Gaeng, 1997). Hejmadi et al. in his case report stated that there was a gradual transformation of the morphology of benign papillary mesothelioma into epitheloid type malignant mesothelioma in patients who were monitored to death (Hejmadi, Ganesan, & Kamal, 2003). Brimo et al. in his study stated that there were 8 patients from 11 cases of benign papillary mesothelioma that had the potential to become malignant mesothelioma (Brimo, Illei, & Epstein, 2010). Washimi et all also reported that there was potential malignancy in benign papillary mesothelioma in a patient who had been monitored for 7 years based on the histology of the tumor. None of these cases describe how this can occur but it is thought to be due to exposure to asbestos, the Simian-40 virus which is continuous and genetic factors that play a role in this (Washimi, et al. 2013).

Asbestos is a natural fibrous silica, and the risk of developing mesothelioma depends on exposure to various types of asbestos mineral fibers. Epidemiological data show that amphibole fiber, crocidolite, is associated with a high risk of mesothelioma and serpentine fiber, chrysotile has the lowest risk. The diagnosis of mesothelioma is directly related to occupational asbestos exposure; but there is evidence that mesothelioma may arise from exposure to both paraoccupational (for example: women after washing their husband's clothes) and non-work environment exposure. Idiopathic or spontaneous mesothelioma can also occur in human or animal who do not get exposure of asbestos, and a recent review shows the rate of spontaneous mesothelioma in humans is around one per million (Moore, Parker, & Wiggins, 2008).

Simian virus-40 (SV-40) is a papilloma virus with oncogenic potential in humans. Several studies have documented the presence of SV-40 with a significant amount in mesothelioma cases. A model of in vitro transformation is present in mesothelioma and provides an understanding of how two strong carcinogens (asbestos and SV40) interact. The molecular effect known in crocidolite asbestos is activating the epidermal growth factor receptor (EGFR), which results in the induction of AP1 transcription factor activity. A single asbestos exposure seems not enough to induce mesothelioma. Mesothelial cells are very susceptible to SV40 transformation, although transformation requires repeated exposure. The results of SV40 infection in the early onset of telomerase activity cause immortalization. The results of T Ag expression in binding and inhibiting cellular p53 and retinoblastoma (RB) family proteins. Asbestos seems to enhance SV40-mediated transformation of human mesothelial cells in vitro, suggesting the possibility of asbestos and SV40 as co-carcinogens. In addition, asbestos damages local and systemic immune responses, providing a mechanism to

avoid immune surveillance and for the survival of cells expressing antigenic T Ag proteins. SV40 infection induces other changes, including inhibition of protein phosphatase 2A (PP2A) and tumor suppressor RASSF1A, and regulation of NOTCH 1, MET oncogenes and insulin-like growth factor-1 (IGF1, Ref 36,40,43, 62,65) and some changes, such as inactivation of RASSF1A, are final events, occurring only after a few parts of the cell. RASSF1A is often inactivated by methylation-region promoters in mesotheliomas that have a SV40 DNA sequence (Gazdar, Butel, & Carbone, 2002).

Imaging examination of mesothelioma such as chest X-ray, CT scan and MRI are useful in getting more information about tumors including the progression of the tumor. Chest X-ray is used to identify abnormalities in the lung including unusual thickening, mineral deposits and fluid in the thoracic region. CT scans can provide images from the same location from various angles (http://www.iarc.fr/en/publications/pdfs-online/pat-gen/bb10/bb10-chap2.pdf). Thoracic computed tomography (CT) is important in detecting invasion of the chest wall, ribs, and mediastinal structures (2). MRI technology uses magnetic fields rather than x-rays to provide additional views. PET Scan - Positron Emission Tomography, more commonly referred to as PET scanning, is a diagnostic technique for nuclear medicine. PET scan is very helpful in determining whether the tumor has spread from its place of origin (6).

In addition to imaging examination in mesothelioma patients, biopsy is an important diagnostic procedure for patients with signs and symptoms of mesothelioma. Fine needle aspiration (FNAB) is a less invasive type that can be performed on solid lesions or liquids extracted through FNAB needles then tested. Needle biopsy and surgical biopsy are sometimes needed to make a definitive diagnosis of mesothelioma. However, the biopsy procedure does not occur infrequently in the preparation or does not make a definitive diagnosis even when the tumor is present. This is because to get an appropriate biopsy, it must include 3 important factors, namely the selection of the biopsy site, the procedure performed, the fulfillment of the requirements of the biopsy tissue (Attanoos et al., 2002).

In benign papillary mesothelioma cells reproduce immunohistochemically reactive in cytokeratin (CK) and mesothelial markers (calreinin, HMBE-1) while Carcinoembryonic Antigen (CEA) is always negative. Low CEA levels indicate benign disease whereas lung cancer patients are known to have increased serum CEA levels (Ordonez, 1998; Muley et al., 2013). In a systematic review, serum markers of SMRP (mesothelin), CEA, Ber-EP4 (epithelialantigen antihuman), and calretinin were the most significant in differentiating mesothelioma from other malignant diseases. However, there are no good markers in distinguishing mesothelioma from all other diseases. Therefore, the use of single tumor markers remains useful as a limited diagnostic value (Muley et al., 2013).

In mesothelioma patients, effusion is common and can affect the pleura or pericardium. Fluid accumulates in the layer between the lungs and chest cavity with pleural effusion. Normally a small amount of lubricating fluid is found in the pleura, pericardium or peritoneum. This fluid comes from the surrounding tissues and vessels. If the liquid exceeds the normal amount, usually a few teaspoons, and is not naturally evacuated, effusion can occur. If effusion, collection and retention of fluid occurs inhibits organ function that affects it. In pleural effusion, exudate pleural effusion, extreme pressure on the lung prevents normal breathing and can cause wheezing or shortness of breath. Exudate pleural effusion is caused by inflammation of the lungs from tumor growth. Sometimes transudate pleural effusion occurs in mesothelioma when there is a leak of fluid from a depressed blood vessel. Often, mesothelioma can occur with transudate pleural effusion and exudate (Moore et al., 2008). Pleural effusion in mesothelioma is generally unilateral, often with contralateral mediastinal shift. Sixty percent of patients have right-sided lesions; which is thought to be related to the gravitational tendency for inhaled asbestos fibers and dust to travel directly to the lower right lobe of the airways (Sterman et al., 2008).

Although there is no biomarker of pleural fluid specifically for mesothelioma, chemical evaluation of pleural fluid can still be useful. Effusion associated with mesothelioma is very exudative, with high protein concentrations in the range of 4 to 5 g / dL and lymphocytic dominance. The pleural fluid concentration of lactate dehydrogenase (LDH) often exceeds that of patients with pleural carcinomatous effusion, with levels greater than 600 IU / L. In patients with advanced stage disease and extensive involvement of the visceral and parietal pleura, pH of pleural fluid, and glucose generally low. In patients with mesothelioma, the presence of a low pleural fluid pH indicates a poor prognosis, and is refractory to attempts to achieve palliative pleurodesis (Sterman et al., 2008).

SVKS is a manifestation of superior vena cava obstruction. This syndrome can be caused by benign or malignant lesions. This occurs because there is an increase in resistance to venous blood flow when the tumor compresses the vein. To compensate for this condition a collateral vein arises from azygos, intercostal, mediastinal, paravertebral, hemiazygos, thoracoepigastric and internal mamary veins. This collateral provides an alternative route of systemic blood flow to the right atrium. Patients with SVKS can give varying symptoms. The most common symptoms were neck and facial swelling (82%), swelling of the hands (68%), tightness (66%), and coughing (50%). Other symptoms that can arise are headache, chest pain, syncope, lethargy, hoarseness, swelling of the tongue,

nasal congestion, epistaxis and hemoptysis. On physical examination, dilated neck veins, increased number of collateral veins in the front chest, cyanosis, swelling of the face, arms and chest (Wan and Bezjak, 2009).

Elmes and Simpson reported that mesothelioma was often found to compress the mediastinal structure and found some venous obstruction on the side of pleural lesions recorded at autopsy (Elmes and Simpson, 1976). In a study of 193 cases of mesothelioma, Legha and Muggia noted chest pain and dyspnea as the most common symptom in 69% and 68% of patients and pleural effusion was found in 78% (Legha and Muggia, 1977). And it had been reported that Ratzer and associates found congestion and edema in the upper limbs, head and neck (Ratzer et al., 1967). The diagnosis of SVK is a clinical diagnosis. Management of SVKS is generally divided into 2, namely curative and palliative. Potential life-threatening complications such as upper airway obstruction, heart failure require immediate treatment without waiting for definitive therapy. Head elevation, oxygen, diuretics, low salt diets and fluid restriction may reduce symptoms temporarily. Life-threatening symptoms such as laryngeal edema and tracheal obstruction must be immediately intubated (Wan and Bezjak, 2009). Diuretic and corticosteroid therapy is often given to patients with SVKS to reduce swelling in the tumor and to reduce pressure on the superior vena cava ultimately. Although this therapy is commonly done but the efficacy of the success of such therapy is still often up to now not been proven in research (http://emedicine.medscape.com/article/460865-treatment, Rowell and Gleeson, 2002).

The pathogenesis of thrombosis in mesothelioma is partly caused by a tumor tissue compresses veins which at one time can develop into direct vascular infiltration and partly caused by a hypercoagulation that characterized by increased plasma fibrinogen levels and an increase in essential fibrin turnover in disseminated intravascular coagulation. Ames and Aye have reported a patient with pleural mesothelioma that was reactive to peripheral blood eosinophilia (PBE) towards the development of deep vein thrombosis (DVT) more than the tumor itself in the background of inflammation and finally hypercoagulation. So that the risk of thrombosis in tumor patients must be considered and consider prophylactic or therapeutic anticoagulants in accordance with clinical and laboratory assessments (Ames and Aye, 2008).

Therapy in patients with benign papillary mesothelioma does not have standard treatment because it is a rare case. In a previous study, some patients did not receive additional treatment but remained stable and showed little or no progression of the disease. A debulking operation is performed for several patients. Medical treatment is also sometimes performed, including chemotherapy, radiation therapy, immunotherapy, sclerosing therapy and its combinations, but the benefits of this treatment have not been clearly demonstrated. In particular, reported 26 patients with benign papillary mesothelioma who underwent complete resection without adjuvant therapy, only one patient had a relapse, which could be cured surgically. Thus, some authors suggest only taking large masses when they occur and following patients with close observation. However, some patients develop disease and die.

Therefore, it would be more useful to consider papillary mesothelioma benign as a potentially malignant disease, which requires active treatment. Several previous studies have reported chemotherapy treatment for benign papillary mesothelioma. In fully resected papillary mesothelioma benign tumors, adjuvant therapy is not needed because the recurrency is rare. If complete excision cannot be done, platinum-based chemotherapy becomes effective. This is consistent with previous studies, where surgical resection followed by chemotherapy shows favorable survival results. If the tumor is multifocal and not operated on, chemotherapy must be considered. The combination of platinum-based regimens showed good results compared to single or non-platinum based regimen agents. If the patient is asymptomatic and the extent of the disease is localized, then strict follow-up may be sufficient given the slow nature of this tumor and the potential complications of aggressive treatment. Although benign papillary mesothelioma usually shows low malignant potential and a slow clinical course, more aggressive therapy is needed for patients at high risk of malignant transformation (Lee et al., 2013).

The good treatment must be performed during surgery because of the high risk of vascular bleeding. Although histologically this mass is benign, Briselli et al. reported that the mortality rate was around 12% due to operative death, with the taking or compression of mediastinal structures causing fatal cardiopulmonary complications (Bicer et al., 1998).

In this case the patient was a 47-year-old woman with a diagnosis of papillary mesothelioma benign who came with a complaint of chest tightness. This diagnosis was confirmed through clinical examination, radiological and histopathological examination as supporting data. From a transthoracic biopsy examination, an illustration was a papillary mesothelioma benign. A CEA examination was carried out to help establish a diagnosis with a result of 1.48 ng / ml, this low result did not indicate malignancy. Complaints of chest tightness due to pleural effusion and SVKS. In these patients plura effusion occured due to lung inflammation due to the tumor. This was evidenced from exudative pleural fluid analysis, has a protein concentration in the range of 4 to 5 g / dL with high LDH and low glucose and pleural fluid cytology which shows the results of reactive mesothelial hyperplasia and no malignant cells found in the preparation.

From the chest X-ray examination in this patient, it was found that the right pulmonary medius lobe with multiple nodules in left pulmonary, suspected as the metastatic process, right pleural effusion and compression fracture of thoracic vertebral 11, suspected as the metastatic process. Based on CT thoracic scan with contrast in 2014 with the results of suspected massed of superior, anterior and right mediastinal (differential diagnosis of right lung mass) which urges the superior vena cava and right pulmonary artery accompanied by pneumonitis and right lung collapse. It was obtained right pleural effusion which is partially encapsulated. The CT scan did not have multiple nodules or thoracic vertebral compression fractures. When compared with the previous CT Scan in 2012, the size and lesion of the tumor appeared to be constant. The patient was planned for resection but failed because the tumor was attached to the surrounding organs, so a biopsy was performed. Mass biopsy was done using HE staining with different results, namely chronic pleurisy, pulmonary edema and congestion and no signs of malignancy are found in this preparation. Based on the literature we obtained, biopsy procedures are not uncommonly resulted of the absence onpreparations or not enough to make a definitive diagnosis even if the tumor is present. So we conclude that the results of tissue biopsy was not fulfilling the factors needed in taking a biopsy specimen.

This patient also experienced an emergency oncology, namely SVKS and a high risk of thrombosis. This diagnosis was based on supporting clinical data such as severe short of breath, a slightly swollen face, chest pain and a rather heavy head. Additional data were obtained from blood gas analysis which showed the occurrence of mixed respiratory metabolic acidosis. Existing thoracic CT scan data support the results of mass that pushes the superior vena cava. We treated the patient with symptomatic therapy such as head elevation, oxygen, restriction, diuretics and corticosteroids which aim to reduce swelling in the tumor and ultimately to reduce pressure on the superior vena cava. We also gave anticoagulant therapy as a prevention against possible thrombosis. Giving the therapy improved the patient's condition.

CONCLUSIONS

It has been reported that a 47-year-old woman with a diagnosis of papillary mesothelioma benign who presented with severe complaints of chest tightness. This diagnosis was confirmed through clinical examination, radiological and histopathological as supporting data. From a transthoracic biopsy examination showed an illustration of a papillary mesothelioma benign. CEA examination was performed to establish the diagnosis with a low result of 1.48 ng / ml. In the course of the patient experienced progression with the occurrence of pleural effusion, SVKS and a high risk of thrombosis. The presence of such invasion was supported by the results of pleural fluid analysis, pleural fluid cytology and chest X-ray CT with contrast. In patients with tumors, an emergency can occur which if not treated immediately and it can be life threatening. Giving a medical treatment to patients with SVKS and the risk of thrombosis can help reduce the patient’s complaints. In this patient a mass biopsy was performed using HE staining with the results of chronic pleurisy, pulmonary edema and congestion and no signs of malignancy were found in this preparation. This different result was caused by not fulfilling the factors needed in taking a biopsy specimen.

REFERENCES

Ames PRJ, Aye WW. Case Report Pleural mesothelioma and venous thrombosis: the eosinophilia link. Thrombosis Journal 2008; 6(3) : 1-3

Attanoos RL, Webb R, Dojcinov SD, Gibbs AR. Value of mesothelial and epithelial antibodies in distinguishing diffuse peritoneal mesothelioma in females from serous papillary carcinoma of the ovary and peritoneum Histopathology 2002;40:237–244.

Bicer M, Yaldız S, Gursoy S, Ulgan M. A case of giant benign localized fibrous tumor of the pleura. European Journal of Cardio-thoracic Surgery 1998; 14 : 211–213

Brimo F Et all. Mesothelioma of the tunica vaginalis: a series of eight cases with uncertain malignant potential. Modern Pathology. 2010; 23 : 1165–1172

Bürrig KF, Pfitzer P, Hort W. Well-differentiated papillary mesothelioma of the peritoneum: a borderline mesothelioma. Report of two cases and review of literature. Virchows Arch A Pathol Anat Histopathol. 1990 ; 417: 443–7

Cancer Research UK Mesothelioma risk and causes. Cancer help.org.uk. 2010-06-23. Retrieved 2010-08-20

Chen S.E, Pace M B. Malignant Pleural Mesothelioma. American Journal of Health-System Pharmacy. 2012 ; 69 (5) : 377 – 385

Elmes PC, Simpson JMC: The clinical aspects of mesothelioma. Q J Med 1976; 179: 427-449

Gazdar AF, Butel JS, Carbone M. SV-40 and Human Tumours : Myth, association or causality?. Nature Reviews Cancer. 2002 ; 2 : 957-964

Hejmadi R, Ganesan R, Kamal NG. Malignant transformation of a well-differentiated peritoneal papillary mesothelioma. Acta Cytol. 2003;47: 517–8.

Höllinger P, Gaeng D. Simultaneous bilateral spontaneous pneumothorax in a patient with peritoneal and pleural papillary mesothelioma. Respiration. 1997 ; 64 : 233 – 235

Lee YK, et al. Therapeutic Strategies for Well-differentiated Papillary Mesothelioma of the Peritoneum. Japannese Journal of Clinical Oncology 2013; 43 (10): 996-1003.

Legha SS, Muggia FM: Pleural mesothelioma: clinical features and therapeutic implications. Ann Intern Med 1977; 87: 613-621

Medscape – Treatment and Management Superior Vena Cava Syndrome. Available at http://emedicine.medscape.com/article/460865-treatment. Accessed on 20 October 2014.

Moore AJ, Parker RJ, Wiggins J. Malignant Mesothelioma. Orphanet Journal of Rare Diseases 2008, 3:34

Muley T, Dienemann H, Herth FJF, Thomas M, Meister M, Schneider J. Combination of Mesothelin and CEA Significantly Improves the Differentiation between Malignant Pleural Mesothelioma, Benign Asbestos Disease, and Lung Cancer. J Thorac Oncol. 2013;8: 947-951

Ordonez NG. Role of immunohistochemistry in distinguishing epithelial peritoneal mesotheliomas from peritoneal and ovarian serous carcinoma. Am J Surg Pathol 1998 ; 22 : 1203–1214

Ratzer ER, Pool JL, Melamed MR: Pleural mesotheliomas. Clinical experiences with thirty seven patients. Am J Roentgenol 1967; 99: 863-880

Riberio C, Campelos S, Moura CS, Machado JC, Justino A, Parente B. Well-differentiated papillary mesothelioma: clustering in a Portuguese family with a germline BAP1 mutation. Annals of Oncology 2013; 24: 2147–2150.

Rowell, NP and FV Gleeson. Steroids, radiotherapy, chemotherapy and stents for superior vena caval obstruction in carcinoma of the bronchus: a systemic review. Clinical Oncology 14; 2002. p. 338-351

Sterman DH, Litzky LA, Albelda SM. “Chapter 88”. Fishman’s Pulmonary Disease and Disorder (4th ed.). McGraw Hill. 2008

Tumour Pleura Chapter 2. Available at http://www.iarc.fr/en/publications/pdfs-online/pat-gen/bb10/bb10-chap2.pdf. Accessed on 19 October 2014.

Wan JF, Bezjak A, 2009. Superior Vena Cava Syndrome. Emerg Med Clin N Am 27, pp 243-255

Washimi K,Yokose T, Amitani Y, Nakamura M, Osanai S, et al. Well-differentiated papillary mesothelioma, possibly giving rise to diffuse malignant mesothelioma: A case report. Pathology International 2013; 63: 220 – 225