

**Journal of Social Sciences (COES&RJ-JSS)**

**ISSN (E): 2305-9249 ISSN (P): 2305-9494 ISNI: 0000 0005 0179 6351**

**Publisher: Centre of Excellence for Scientific & Research Journalism, COES&RJ LLC**

**Online Publication Date: 1<sup>st</sup> July 2024**

**Online Issue: Volume 13, Number 3, July 2024**

<https://doi.org/10.25255/jss.2024.13.3.65.70>



## **Squamous Cell Esophageal Cancer: A Case Report**

**Almothana Aburumman**

Medical Student, Bachelor's Degree (B.S),  
Loyola University of Chicago, USA

### **Abstract:**

Esophageal cancer, particularly the squamous cell esophageal cancer, poses a substantial concern due to its late-stage presentations with unclear symptoms. Squamous cell cancer is characterized by squamous dysplasia, nuclear anaplasia, and the presence of keratinocyte-like cells with intercellular bridges or keratinization. Lesions might appear as ulcerative or diffusely infiltrative. This case report presents a 63-year-old male patient with significant past medical history who presented with chronic dysphagia as his chief complaint, and his recent esophagogastroduodenoscopy revealed a biopsy-proven 9cm hypermetabolic mid-esophageal tumor consistent with squamous cell esophageal carcinoma.

### **Keywords:**

Squamous cell esophageal cancer, dysphagia, metastasis, esophagogastroduodenoscopy biopsy

### **Citation:**

Aburumman, Almothana; Squamous Cell Esophageal Cancer: A Case Report (2024); Journal of Social Sciences (COES&RJ-JSS), Vol.13, No.3, pp: 65-70; DOI: 10.25255/jss.2024.13.3.65.70

### INTRODUCTION

Esophageal carcinoma is a fatal condition. This is related primarily to late presentations of its nonspecific symptoms (Savant et al., 2021). EC (esophageal cancer) is the eighth most common kind of cancer globally, with squamous cell carcinoma being the most common subtype. The average age of EC diagnosis is 27-87 years and it is quite unusual in young people. Squamous cell carcinoma of the esophagus is characterized by squamous dysplasia, nuclear anaplasia, and the presence of keratinocyte-like cells with intercellular bridges or keratinization (Hou et al., 2021). It often manifests as a tumor or a lesion on endoscopy. This cancer might appear as ulcerative or diffusely infiltrative lesions (Weihua et al., 2021). The most frequent symptoms of squamous cell carcinoma are dysphagia and weight loss. In addition, the patient may have retrosternal or epigastric discomfort, regurgitation, a prolonged cough, chronic gastrointestinal blood loss, and/or hoarseness.

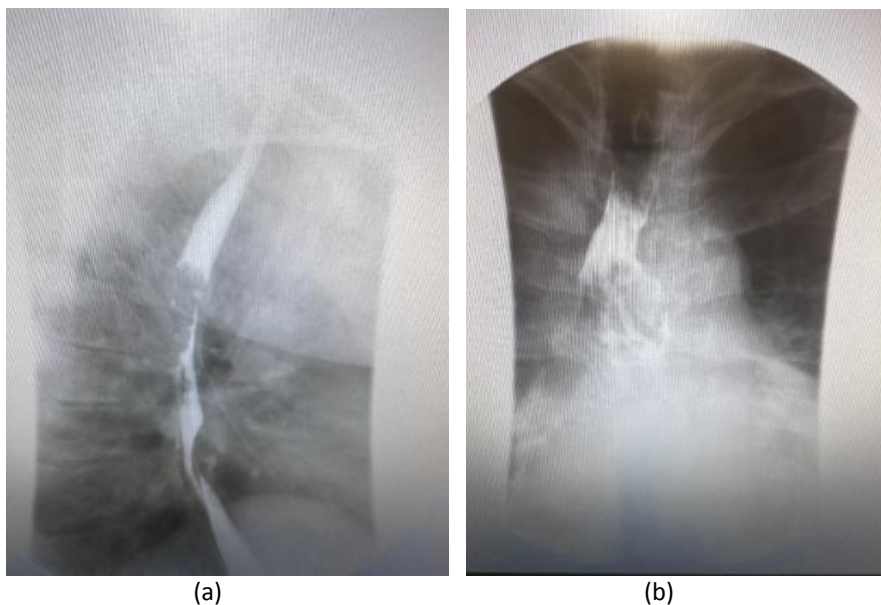
Squamous cell esophageal cancer requires a comprehensive approach to treatment. Endoscopic treatment may be explored in individuals with epithelial and lamina propria mucosal cancers. In patients with limited illness, surgical therapy might be considered. Patients with late-stage noncervical esophageal cancer may benefit from preoperative chemoradiation treatment (Minashi et al., 2019). Despite advancements in treatment methods for esophageal cancer, the overall 5-year survival rate for patients with esophageal cancer remains 15-25% globally. Tumor size, tumor differentiation, node staging, and tumor staging are all independent prognostic markers influencing ESCC patients' prognosis.

This report discusses the case of a 63-year-old male with chronic dysphagia who was a former smoker with a considerable previous medical history, and whose esophagogastroduodenoscopy showed an unexpected diagnosis of squamous cell esophageal carcinoma with metastases.

### Case Presentation

The patient, a 63-year-old African American male, presented with chronic dysphagia as his chief complaint. He is a former smoker who quit smoking a month ago after smoking half/packs a day for 39 years. He is a single father of two children. His medical history is lengthy and complex, covering several systemic illnesses as well as a considerable family history of diabetes, hypertension, heart disease, and cancer.

On examination, the patient's vital signs revealed increased blood pressure (146/95 mmHg), tachycardia (pulse 114 bpm), and a weight of 108.9 kg (240 lbs). His recent esophagogastroduodenoscopy revealed a biopsy-proven 9cm hypermetabolic mid-esophageal tumor consistent with squamous cell esophageal carcinoma. Furthermore, several metastatic hypermetabolic lymph nodes were seen in the right paratracheal area, subcarinal region, and gastrohepatic region. The patient was diagnosed with squamous cell esophageal cancer, notably a malignant tumor affecting the middle third of the esophagus.



**Figure 1: Esophagogastroduodenoscopy showing mid-esophageal tumor**

The patient's significant past medical history shows alcoholic cirrhosis of the liver without ascites, periodontal disease, dental caries, neuropathic pain in the left leg, portal hypertensive gastropathy, arthritis, primary insomnia, avascular necrosis of the right hip, vitamin D deficiency, abnormal liver CT findings suggestive of cirrhosis, Madelung's disease, arm swelling, hypoxia, shortness of breath (SOB), cough, essential hypertension, chronic bilateral low back, folate deficiency anemia, and lumbosacral radiculopathy at S1. He is allergic to penicillin and is now taking the following medications; albuterol (proventil/ventolin HFA) 90 mcg/actuation inhaler, amitriptyline 25 mg tablet, vitamin B12 100 mcg tablet, docusate sodium 100 mg capsule, doxazosin 2 mg tablet, ergocalciferol 50,000 unit cap, famotidine 40 mg tablet, folic acid 800 mcg tab, gabapentin 300 mg capsule, hydrocodone, acetaminophen 7.5-325 mg per tablet, losartan 25 mg tablet, omeprazole 40 mg capsule, and sildenafil 100 tablet. Family history showed that his mother and father have diabetes, hypertension, and heart disease. His brother has HTN and out of his sisters one has throat cancer while the others were diagnosed with diabetes.

### **Discussion**

Several aspects play a role in the development of squamous cell esophageal cancer. Hereditary factors, smoking and alcohol consumption, high-temperature beverages, preexisting esophageal diseases like caustic strictures and achalasia, a diet low in vegetables and fruits, prior partial gastrectomy, human papillomavirus, and atrophic gastritis are all risk factors for the development of squamous cell esophageal cancer (Nakanishi, 2020). The frequency of Squamous Cell Esophageal Cancer rises with age and peaks in the seventh decade of life. Squamous Cell Esophageal Cancer is more frequent in African-American men than in women (Uhlenhopp et al., 2020).

## Squamous Cell Esophageal Cancer: A Case Report

This current case of squamous cell esophageal cancer highlights numerous crucial factors in the diagnosis and therapy of this illness. Due to its late-stage appearance and unclear symptoms, esophageal cancer, particularly the squamous cell subtype, provides substantial difficulty (Shiratori et al., 2021). The example underlines the need of identifying dysphagia as a critical symptom that requires comprehensive study, particularly in persons with significant risk factors such as a history of smoking.

Dysphagia, a typical sign of esophageal cancer, is presented as the primary complaint in this case, prompting the patient's medical assessment. Recognizing dysphagia as a red flag symptom is critical, especially in those with strong risk factors such as a history of smoking. This highlights the need of both patients and healthcare practitioners being diligent in detecting and examining possible warning indicators, even if they appear innocuous or ambiguous at first.

However, the patient's significant medical history, which includes multiple systemic ailments and familial predispositions to disorders such as diabetes, hypertension, heart disease, and cancer, adds to the case's complexity. This multitude of comorbidities complicates maintaining the patient's general health while devising a suitable treatment strategy for the squamous cell esophageal cancer. Precision medicine and tailored treatments provide potential treatment options for squamous cell esophageal cancer. Biomarker identification and genetic profiling may help in the development of more effective and less intrusive therapeutic choices while limiting side effects (Morgan et al., 2022).

The identification of metastatic hypermetabolic lymph nodes in several areas emphasizes the advanced stage and aggressive character of the malignancy at the time of diagnosis (Kono et al., 2021). The existence of metastasis has a substantial impact on treatment decisions, potentially restricting the feasibility and efficacy of therapeutic therapies. A multidisciplinary approach combining oncologists, surgeons, radiologists, and other experts is essential in developing an individualized treatment strategy. This involves balancing the advantages and hazards of various therapy modalities, taking into account the patient's general health situation, and understanding the possible influence of treatment on their quality of life.

One of the most difficult aspects of identifying esophageal cancer is its vague symptoms, which frequently lead to delayed discovery (Then et al., 2020). The patient's extensive medical history, which includes a slew of systemic illnesses, complicates the diagnosis procedure even more. This complication emphasizes the importance of a complete and holistic approach to patient assessment. A multidisciplinary team is essential in navigating the complexities of this disease, adjusting diagnostic tools and treatment plans to the specific needs of each patient.

This case study emphasizes the need of detecting metastatic involvement in esophageal cancer. The presence of metastatic hypermetabolic lymph nodes in diverse areas indicates that the illness had progressed at the time of diagnosis. Early diagnosis of metastases is critical for defining treatment strategy and prognosis. Squamous cell

esophageal carcinoma is often treated with a mix of methods such as surgery, radiation, and chemotherapy treatment. Treatment considerations become more complicated in situations with significant metastases and other systemic comorbidities, necessitating a tailored strategy (Batra et al., 2019). The complicated medical history of the patient raises worries regarding the patient's tolerance and efficacy of intensive treatment approaches.

This case report emphasizes the need for continued research and clinical care in improving our understanding and treatment of squamous cell esophageal cancer. Diagnostic technologies, targeted medicines, and supportive care advances all play a crucial role in improving the overall prognosis and quality of life for those suffering from this potentially deadly malignancy.

### **Conclusion**

The case described here demonstrates the diagnostic obstacles and complexity associated with squamous cell esophageal carcinoma in a 63-year-old male patient with a significant past medical history and several systemic comorbidities. Esophageal cancer, particularly the squamous cell subtype, remains a significant concern due to its slow development and non-specific clinical symptoms. The example emphasizes the need of identifying dysphagia as a key symptom that requires comprehensive study, particularly in patients with a history of strong risk factors like smoking.

This case emphasizes the necessity of holistic patient evaluation, personalized diagnostic techniques, and complete care regimens in negotiating the intricacies of squamous cell esophageal carcinoma in the setting of varied medical histories. Multidisciplinary teamwork and individualized care are critical in improving treatment and prognosis in such complex clinical circumstances. Continued research and clinical attention are required to improve our understanding and management of this potentially fatal cancer in a variety of patient presentations.

**ESCC:** Esophageal squamous cell carcinoma; **EC:** Esophageal Cancer

### **References:**

- Batra, R., Malhotra, G. K., Singh, S., & Are, C. (2019). Managing Squamous Cell Esophageal Cancer. *Surgical Clinics of North America*, 99(3), 529–541. <https://doi.org/10.1016/j.suc.2019.02.006>
- Hou, W. H., Duan, X. K., Hou, W. D., Ma, L. J., Niu, J. W., Zhou, S. L., & Jin, M. L. (2021). [Clinicopathological features of basal cell type dysplasia of esophagus]. *Zhonghua Bing Li Xue Za Zhi = Chinese Journal of Pathology*, 50(6), 638–644. <https://doi.org/10.3760/CMA.J.CN112151-20201009-00770>
- Kono, M., Kanesaka, T., Ishihara, R., Kitamura, M., Shoji, A., Inoue, T., Matsueda, K., Miyake, M., Waki, K., Shimamoto, Y., Fukuda, H., Iwagami, H., Matsuura, N., Nakahira, H., Shichijo, S., Maekawa, A., Yamamoto, S., Takeuchi, Y., Higashino, K., ... Fujiwara, Y. (2021). Delineating the extent of esophageal squamous cell carcinoma. *Esophagus*, 18(4), 790–796. <https://doi.org/10.1007/S10388-021-00854-W/METRICS>

## Squamous Cell Esophageal Cancer: A Case Report

Minashi, K., Nihei, K., Mizusawa, J., Takizawa, K., Yano, T., Ezoe, Y., Tsuchida, T., Ono, H., Iizuka, T., Hanaoka, N., Oda, I., Morita, Y., Tajika, M., Fujiwara, J., Yamamoto, Y., Katada, C., Hori, S., Doyama, H., Oyama, T., ... Muto, M. (2019). Efficacy of Endoscopic Resection and Selective Chemoradiotherapy for Stage I Esophageal Squamous Cell Carcinoma. *Gastroenterology*, *157*(2), 382-390.e3. <https://doi.org/10.1053/J.GASTRO.2019.04.017>

Morgan, E., Soerjomataram, I., Runggay, H., Coleman, H. G., Thrift, A. P., Vignat, J., Laversanne, M., Ferlay, J., & Arnold, M. (2022). The Global Landscape of Esophageal Squamous Cell Carcinoma and Esophageal Adenocarcinoma Incidence and Mortality in 2020 and Projections to 2040: New Estimates From GLOBOCAN 2020. *Gastroenterology*, *163*(3), 649-658.e2. <https://doi.org/10.1053/J.GASTRO.2022.05.054>

Nakanishi, Y. (2020). Pathology of Esophageal Squamous Cell Carcinoma. *Esophageal Squamous Cell Carcinoma*, 15–34. [https://doi.org/10.1007/978-981-15-4190-2\\_2](https://doi.org/10.1007/978-981-15-4190-2_2)

Savant, D., Zhang, Q., & Yang, Z. (2021). Squamous Neoplasia in the Esophagus. *Archives of Pathology & Laboratory Medicine*, *145*(5), 554–561. <https://doi.org/10.5858/ARPA.2020-0058-RA>

Shiratori, Y., Kanomata, N., Takagi, K., & Fukuda, K. (2021). Esophageal basaloid squamous cell carcinoma presenting as a subepithelial lesion. *Clinical Journal of Gastroenterology*, *14*(5), 1324–1328. <https://doi.org/10.1007/S12328-021-01449-9/METRICS>

Then, E. O., Lopez, M., Saleem, S., Gayam, V., Sunkara, T., Culliford, A., & Gaduputi, V. (2020). Esophageal Cancer: An Updated Surveillance Epidemiology and End Results Database Analysis. *World Journal of Oncology*, *11*(2), 55. <https://doi.org/10.14740/WJON1254>

Uhlenhopp, D. J., Then, E. O., Sunkara, T., & Gaduputi, V. (2020). Epidemiology of esophageal cancer: update in global trends, etiology and risk factors. *Clinical Journal of Gastroenterology*, *13*(6), 1010–1021. <https://doi.org/10.1007/S12328-020-01237-X/METRICS>

Weihua, H., Xinke, D., Weidong, H., Minqiang, S., Xiaolan, Z., Yanfeng, L., & Mulan, J. (2021). [Clinicopathological features of basal cell layer type high-grade squamous dysplasia of the esophagus]. *Zhonghua Bing Li Xue Za Zhi = Chinese Journal of Pathology*, *50*(3), 236–241. <https://doi.org/10.3760/CMA.J.CN112151-20200611-00465>