**Differential Diagnosis**

This study aims at distinguishing a variety of medical conditions which appear to be similar in signs and symptoms. The patient is a 47-year-old patient complaining of prolonged abdominal discomfort. The paper will analyze both the subjective and objective portions of the SOAP notes and as well provide the diagnostic tests that are most appropriate in determining the patient's diagnosis.

**Subjective analysis**

The patient is 47 years old whose chief complaint is stomach pains, the onset of diarrhea which has been going on for 3 days. The patient appears well nourished which means that he looks healthy and physically strong. He has not been under any medication since the pains started. The pains have however subsided from their severity from a ratio of 9/10 to 5/10. From his medical history, he has previously experienced cases of Hypertension, Diabetes, and Gastrointestinal bleeding dating back four years ago. The patient has no record of an allergic reaction to any drug that has been administered to him in the past.

During medical diagnosis, the physician has to look at the family history of the patient (Afolabi, & Guo, 2014). When the health history of the family was examined, there was an absence of cases of colon cancer which could have been one of the possible reasons for the abdominal pains. The absence of colon cancer in the family history, however, does not rule out the possibility of its diagnosis on the patient. It only lowers the risk of its existence, since cancer can be hereditary.   Records also showed that the patient’s father had a history of Diabetes Type 2. In medicine, this is a risk factor for the patient and therefore Diabetes Type 2 was documented as one of the illnesses to be examined in the patient (Sharma et al., 2017). Both parents of the patient also have a history of Hypertension which could also be among the risk factors during the diagnosis of the patient.

The mother had a history of Hyperlipidemia and GERD which were both recorded for further examination on the patient. The social life of the patient was considered healthy since there was no record of tobacco smoking. However, there was occasional drinking which could have resulted in other health problems that could affect the abdomen. The patient has three children and a wife. This situation would prompt the physician to analyze the family relations within his household, which would elevate the risk of his illness such as stress levels. The family financial status should also be examined in order to enhance the diagnosis since financial constraints with a large family like that of the patient could lead to stress (Afolabi, & Guo, 2014). Marital stability should also be examined to determine the contribution of the family to the patient’s health status.

**Objective Analysis**

After examination by the physician, the patient’s vital signs were as follows. First, the temperature was at 99.80 F. The normal temperature of the human body ranges between 97.80 F and 990 F, which means that the patient’s body temperature was within the accepted range. His blood pressure was at 160/86 whereas the normal blood pressure should be at 120/80.  The patient exceeded the normal blood pressure. His systolic was at stage 2. It was higher than 140, which is an alarming sign. The diastolic was at stage 1 falling between 80 and 89. This was an alarming sign which was recorded as a risk factor for several illnesses especially those related to stress. His respiration rate was within range, falling between 12 and16 at 16 breaths per minute. His pulse rate which represents both the strength of the pulse and the heart rhythm was at 92 beats per minute which were within the normal 60-100. His Body mass index was way above normal at 36.9 and the patient was considered obese, obesity is declared at BMI greater than 29.9. Other tests on the heart rate were normal. His lungs were functional and his skin was in good condition and no abnormalities were detected. After the examination of his abdomen, softness, hyperactivity in the bowel accompanied by sounds, and pos pain in his lower left quadrant was recorded. The physician should also have examined his Body Mass Index (BMI) which, with the given height and weight, was way above normal at 36.9 (Mendelson, 2015). The patient was alarmingly obese, obesity is declared at BMI greater than 29.9.

**Nature of the Assessment**

The medical assessment was supported more by the objective information since those were the verifiable facts during the patient's diagnosis. In the subjective assessment, the patient appeared well nourished and denying intake of tobacco and occasional intake of alcohol was subject to bias. It is only through the objective assessment that high blood pressure and obesity were detected which created room for more informed diagnosis.

**Diagnostic Tests**

Besides analyzing the patient's health history, a physical examination would also be very essential.  Further tests such as palpation would be very helpful in the diagnosis. Palpation requires the physician to gently exert pressure on various parts of the abdomen to assess tenderness and pain (Mendelson, 2015).  The presence of pain on a certain part like the left lower quadrant would help the physician make a variety of diagnosis related to the digestive tract, abdominal wall muscles, blood vessels and the patient’s reproductive organs. A lab test can also be conducted where occult stool can be used to check for traces of blood. The patient had complained of diarrhea which could be a sign of infection in the stomach (Mendelson, 2015). CT scans on the lower abdomen would be very essential in the diagnosis as they are more precise on the locations of the infection.

**Possible Differential Diagnosis**

One of the possible differential diagnoses is the presence of Crohn disease characterized by abdominal pain with bloody diarrhea. The patient could also be suffering from Ureterolithiasis, which is characterized by colicky pain which may be progressive then turning to constant. The patient reported the pain to have been severe at first then lowered with time, which could be caused by the body tolerating to the pain. Another symptom of ureterolithiasis is a pain in the lower abdomen which was detected in the patient's lower left quadrant (Dains et al., 2015).

The other possible condition could have been incarcerated hernia, which is characterized by severe pain in either the RLQ or the LLQ as detected in the patient. Obesity may result in intestinal obstruction where the intestines are blocked and may result in the abdominal pains experienced by the patient as well as diarrhea (Sharma et al., 2017). The fat causes the blocking on blood vessels and may lead to high blood pressure which is common among obese people. The patient exceeded the normal blood pressure; his systolic was at stage 2 and was higher than 140 which is a warning sign for hypertension.

**References**

Afolabi, J., & Guo, H. (2014). Guiding Hypertensive Adult Patients: A Literature Review of Evidence-Based Nursing.

Dains. E. J., Baumann L.C., & Scheibel P., (2015). Advanced Health Assessment and Clinical Diagnosis in Primary Care. 5th Edition. *ELSEVIER*, *30*(5), 236-237.

Mendelson, R. (2015). Diagnostic tests: Imaging for chronic abdominal pain in adults. *Australian prescriber*, *38*(2), 49.

Sharma, L., Srivastava, H., Pipal, D. K., Kothari, S., Dhawan, R., & Purohit, P. M. (2017). Acute intestinal obstruction: small intestine vs. large intestine: an analysis. *International Surgery Journal*, *5*(1), 162-167.

Yang, X. F., & Liu, J. L. (2014). Acute incarcerated external abdominal hernia. *Annals of translational medicine*, *2*(11).