**Case-5 : Abdominal pain: Student Handout**

**Part 1:**

Mrs. Fatima A 28-year old female is brought to the hospital complaining of lower [abdominal pain](http://en.wikipedia.org/wiki/Abdominal_pain), discomfort, bloating, and alternating diarrhea and constipation for the last 3-4 months. At present the pain is in lower abdomen and is exacerbated by meals and is relieved by defecation. She was prescribed by her family physician some tablets that also add to her relief. She also noticed whitish [mucus](http://digestive.niddk.nih.gov/ddiseases/pubs/ibs_ez/#7) in the stool (and has a feeling that she has not finished a bowel movement completely even after spending ample time in the toilet). She worries why her abdomen remains bloated and swollen most of the time

Her past medical history is not significant for any hospital admissions or surgeries and she is not known to have any allergies.

**Part 2:**

**General Examination** revealed:

Weight: 151.8 lbs.

Height: 170.2 cm.

BMI: 23.8

Temp: 37.2˚C orally.

**Vital signs**

|  |  |  |
| --- | --- | --- |
| **Vital signs** | **Fatima** | **Normal range** |
| Pulse rate | 100 regular | 60-100/min |
| Blood pressure | 120/80 mmHg | 100/60-120/80 mmHg |
| Temperature | 37.3 0C | 36.6-37.2 °C |
| Respiratory rate | 16 | 12-16/min |

Abdominal examination revealed soft lax abdomen, no organomegaly but tenderness over the lower abdomen on deep palpitation.

**Part 3:**

**Investigations:**

**Complete Blood Count**

|  |  |  |
| --- | --- | --- |
| Blood Test | Fatima | Normal range |
| Haemoglobin | 11 g/100ml | 11.5-15.5 g/100ml |
| White blood cell count | 8,000 mm3 | 5,000 -10,000 mm3 |
| PCV | 42 % | 37-47% |
| MCV | 86 fl | 80-96 fl |
| MCHC | 323 g/L | 300-350 g/L |
| Platelet count | 242,000 mm3 | 160,000-500,000 mm3 |

Celiac serology: normal

Ultrasound abdomen: normal

Colonoscopy: normal

[Lower gastrointestinal (GI) series](http://digestive.niddk.nih.gov/ddiseases/pubs/ibs_ez/#6) **(barium enema** x-ray): normal

**Urea and Electrolytes**

|  |  |  |
| --- | --- | --- |
| **Test** | **Fatima** | **Normal range** |
| Serum Sodium | 139 | 135-145 mmol/L |
| Serum Potassium | 4.0 | 3.5-5.0 mmol/L |
| Blood Urea | 3.0 | 2.5-8.3 mmol/L |
| Blood creatinine | 0.09 | 0.05-0.11mmol/L |
| Blood Glucose | 8.0 | 3.6-5.3 mmol/L |

**Liver function test**

|  |  |  |
| --- | --- | --- |
| Blood Test | Fatima | Normal range |
| Total bilirubin | 0.8 mg/dl | 0.2-1.4 mg/dl |
| conjugated bilirubin | 0.3 mg /dl | 0.0- 0.4 mg/dl |
| Unconjugated bilirubin | 0.5 mg/dl | <1.2 |
| Alkaline phosphatase | 44 U/L | 32-110 U/L |

**Urinalysis**

|  |  |  |
| --- | --- | --- |
| **Test** | **Fatima** | **Normal range** |
| Color | Pale Yellow | Pale to dark yellow |
| Acid/base (pH) | 7.4 | 4.5-8.0 |
| Specific Gravity | 1.008 | 1.002-1.035 |
| Protein | Nil | Nil |
| Glucose | Glucosuria | Nil |
| Ketones | Nil | Nil |
| Nitrite | Nil | Nil |
| RBC | 0 | 0-5.0 |
| WBC | 0 | 0-5.0 |
| Casts | Nil | Nil |

**Learning objectives:**

At the end of the session the student should be able to;

1. Enlist the differential diagnosis of the abdominal pain experienced by the patient and identify all the most likely & less likely causes.
2. Justify the abnormal findings (if any) in the history and clinical examination.
3. Name further investigations that are required.
4. Interpret “red flag” indicators that need to be investigated promptly.
5. Discuss the management of this patient at the time of attacks of diarrhea and constipation and afterwards (i.e. prophylactic and long term )
6. Discuss the classification, modes of action and side effects of the following drugs:
7. Antidiarrhoeal drugs (e.g.: loperamide)
8. For constipation, osmotic laxatives (e.g.: epsom salts, lactulose)
9. Antispasmodic (e.g.: mebeverine)
10. Antidepressants
11. Describe the non-pharmacological management of IBS
12. Highlight the importance of life style modifications for patients with IBS
13. Discuss the importance of changing the eating habits.

10. Describe the prognosis of IBS.

**Instruction to the students:**

Please read the case carefully, individually or in the group before you are coming to the “Case based learning” session. Look at the objectives and try to fulfill these objectives. Prepare for the case well by referring to some suggested reading list. The tutor in CBL session will ask you to go through the case and answer some of his stimulating questions to ensure that you have achieved the objectives

**Suggested Reading:**

* Clinical Medicine: Parveen Kumar. 6th edition
* Clinical methods by McLeod

**Important Information to students:**

* The students are expected to read the case and related question carefully, before they come case-based discussion session.
* Every student must bring the following book to the session:
* Clinical methods by McLeod