Summary of PBL cases

PBL
TEAMWORK

Case1: Coeliac disease

Key information and problems	• Female, 22 years old, student at KSU • Loose bowel motions • Abdominal discomfort • Lost bodyweight and unable to gain them back • Three years ago she was diagnosed with iron deficiency anemia
Examinations	• **Clinical examinations:** she is underweight and looks pale
Investigations	• **CBC:** for her anemia • **Stool analysis:** shows fat globules (steatorrhea) and undigested food fibers • **Iron studies:** to determine the type of her anemia • **Biochemical tests of blood:** to give her the supplements • **Antibodies test:** to confirm the diagnosis • **Gastroscopy with duodenal/jejunal biopsies*:** to confirm the diagnosis
management	• Restrict diet and avoid food containing gluten (such as wheat, rye and barely) • Iron tablets 3 times a day • Folic acid tablets • Vitamin D supplements
Prognosis	This disease has a good prognosis. By avoiding foods rich in wheat, rye and barely (any food containing GLUTEN). Adhering to this diet will result in lowering the level of antibodies and allowing the lining small intestine to grow back and hence improving the absorption of nutrients
Important notes	• **Coeliac disease:** An autoimmune disease, Which causes malabsorption of nutrients such as iron, folic acid, vitamin D, calcium • Fatma's biopsy shows atrophy and blunting of villi * • Her low body weight, anemia and the presence of fat globules in stools are due to: MALABSORPTION

Case 2: Colorectal carcinoma

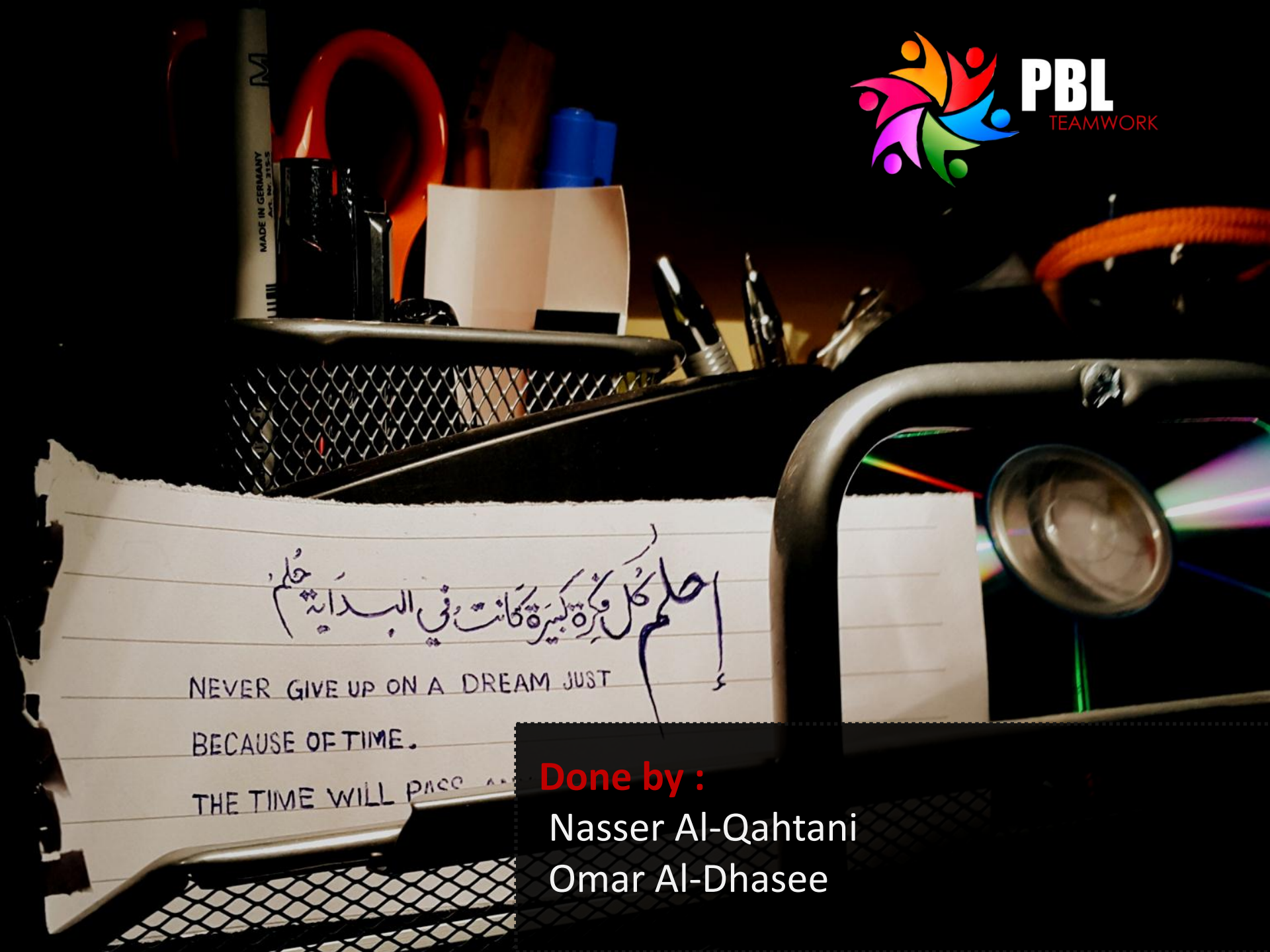
Key information and problems	• 54 years old, Male and Primary school teacher • Bleeding per rectum • Weight loss • Changes in bowel habits .These changes are constipation followed by diarrhea
Examinations	• **Digital per rectum:** There is fresh blood on the gloved examining finger
investigations	• **Colonoscopy :** A mass in sigmoid region . Its surface is irregular and shows multiple ulcers , necrosis and bleeding areas • **CT scan of abdomen:** A tumor mass occupying the sigmoid colon • **Colon biopsy:** Presence of invading neoplastic epithelial cells
Management	➢ **Surgical resection of the malignant areas of colon (Colectomy):** he may need stoma formation after surgery ➢ **Chemotherapy:** Starts on 5-Flurouracil, With folinic acid to reduce the toxicity of 5-flurouracil
Prognosis	• Feels much better, and undergoes Carcino embryonic antigen (CEA) successfully
important notes	• **stoma formation :** Temporary opening of the terminal end of the intestine into the anterior abdominal surface • The changes in Faisal's bowel habits are Due to extend of the mass into lumen of the colon which interferes with passage of stools during defecation • The marker in case of colon cancer is Carcino embryonic antigen (CEA) • His bleeding per rectum and anemia are due to The surface of colonic mass shows several bleeding area • After surgery, the doctor will examine the adjacent lymph nodes of the resected colon. If there's evidence of spread of cancer cells to the draining lymph nodes, chemotherapy is needed (prognostic factor) (so it was positive) • Family relatives of this patient are at higher risk on developing colon cancer

Case 3: Liver cirrhosis

Key information and problems	• Male, 58 years old, business man • Vomited large amount of blood (hematemesis) • Sclera of his eyes are yellow • Increased abdominal girth
Examinations	• Spider naevi are found on his face, neck and both shoulders • His hands show palmar erythema his nails show leuconychia • He has gynaecomastia on both sides and his testicles are atrophied • His abdominal girth is increased and there are dilated veins and the umbilicus (Caput medusae) • Percussion of his abdomen: there is positive shifting dullness (indicating the presence of free fluid in the peritoneal cavity)
Investigations	• **Blood investigations** (CBC, liver function tests, viral serology screening tests, blood urea, creatinine and electrolytes) • **Ultrasound:** shows liver nodularity and ascites • **Liver biopsy:** - bridging fibrosis which may extend from one portal tract to another - ballooning degeneration
Management	1. **Esophageal varices:** esophageal banding – Octreotide (before esophageal banding) 2. **Ascites:** Diuretics 3. **Portal hypertension:** Beta blocker 4. **Prolonged prothrombin time (bleeding):** vitamin K injection
Prognosis	He didn't make a liver transplantation, so he died by vomiting blood which is caused by ruptured esophageal varices
important notes	• His liver cirrhosis is caused by hepatitis C virus infection • **Portal hypertension:** The changes in the liver resulted in blocking the normal blood circulation in the liver and forced the blood to shift into the systemic circulation via other veins outside the liver • Portal hypertension is the cause of: caput medusae (dilated abdominal veins), esophageal varices (which leads to hematemesis), ascites and splenomegaly • His yellowish sclera is due to high billirubin • Octretide works on esophageal varices by decreasing the pressure of portal vein • Liver transplantation is the only method that can cure liver cirrhosis

Case 4: Beta thalassaemia intermedia

Key information and problems	•MALE, 7 years old and primary school student •Always tired •Pale •Short of breath
Examinations	• Pale, vital signs are normal EXCEPT for increased pulse rate (TACHYCARDIA)
Investigations	• **His blood film shows:** - Hypochromasia (RBCs are paler than normal cells) -Microcytosis (RBCs are smaller than normal cells) -Polychromasia (RBCs tend to be stained with acid and basic days) -Target cells (RBCs with a dark center surrounded by a light band that again is encircled by a darker ring) -Anisocytosis (significant variations in the size of RBCs) • **CBC:** shows low MCV and MCH (microcytic hypochromic RBCs) • **Iron tests:** NORMAL (so it's NOT iron deficiency anemia) • **Hemoglobin electrophoresis:** confirmed as Beta thalassaemia intermedia (hereditary type of anemia)
management	• He will not need blood transfusion because he's at intermedia (not major) • Intermedia because of: ✓ Hb in the range of 7.5-8.5 g/dL without the need for blood transfusion - ✓ Presented at relatively later age (7 years old) ✓ Blood changes are not severe, so he will not need blood transfusion
Prognosis	• He will not need blood transfusion except on the presence of severe infection or hyper active spleen destroying the RBCs
Important notes	• Shortness of breath because RBC's are not normal so less oxygen will be carried to tissues leading to increase heart rate to compensate the oxygen loss. • *Hemoglobin electrophoresis test: is a blood test done to evaluate the different types of hemoglobin in the bloodstream*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TEAMWORK
إحلم كل فكرة كبيرة كانت في البداية حلم
NEVER GIVE UP ON A DREAM JUST
BECAUSE OF TIME.
THE TIME WILL PASS
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