CASE PRESENTATION

(MEDICAL ROTATION)

The case

Name : J. M. A.

MRN : 0559005

DOB : 24/9/1968

DOA : 8/11/2008

Lives in Jeddah

Married (5 kids)•

Fair socioeconomic status

Medical history

Previous medical history :

- Diabetes mellitus (type 2) for 2 years .

Previous surgical history:

Anal Fistulectomy (2000).

Medications :

OHG.

Admitted to hospital (ward 17) as a case of continuous fever for the last 2 months.(for investigation)

Vital signs :

temp: 36.8

B.P : 128/85 mm hg

Pulse : 78 b/min

RR : 20

Procedures (medical report):

CT brain → multiple brain lesions .

Physical examination → skin lesions with pus discharge .

+ve history of insect bite

+ve history of raw milk ingestion

+ve history of multiple sexual contact

So ,

What is the final diagnosis

At 10/11/ 2008

They did a blood test & the result was …..

HIV+ve

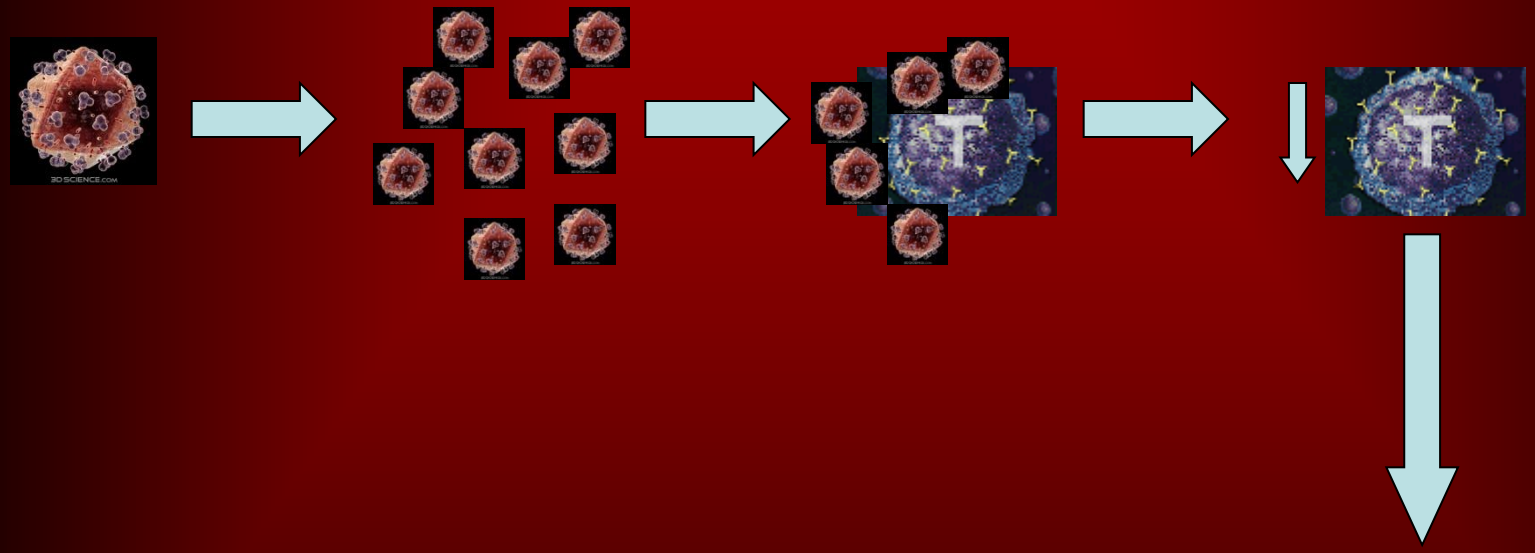
what is (HIV) ?

The human immunodeficiency virus, that causes AIDS.

It replicates in the body and kills the CD4 cells, (the principal agents involved in protection against infections), & this will cause depletion of CD4 cells, which leads to immunodeficiency , opportunistic infections, & other complications .

When HIV infection becomes advanced it is called AIDS(acquired immunodeficiency syndrome), It generally occurs when the CD4 count is below 200mL.

Pathophysiology



Immunodeficiency

Opportunistic infections

Other complications

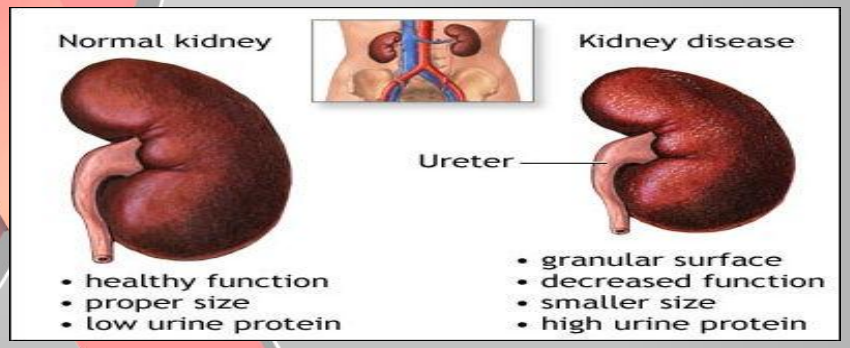
Cont ..

When HIV infection becomes advanced it is called AIDS(acquired immunodeficiency syndrome), It generally occurs when the CD4 count is below 200.

Some HIV complications

HIV associated nephropathy :

Syndrome of progressive renal failure with HIV infection .



HIV liver disease :

Hepatitis C (considered an HIV opportunistic infection).

Metabolic changes

1:HIV wasting syndrome :

Catabolic condition with loss of muscle mass, poor appetite & intake.

Defined as meeting one of the following criteria :

1:wt loss of 10% over 12 months.

2:wt loss of 10% over 6 months.

3:BMI<20 kg/m2

Metabolic changes (cont..)

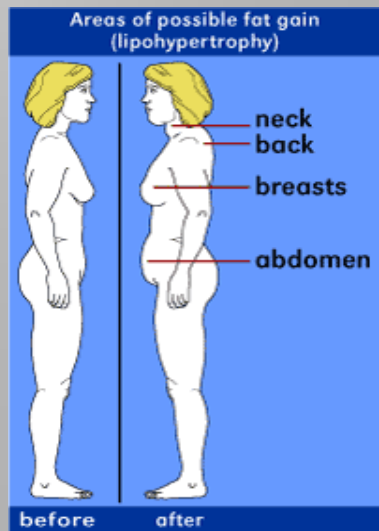
2:lipodystrophy syndrome :

Characterized by→

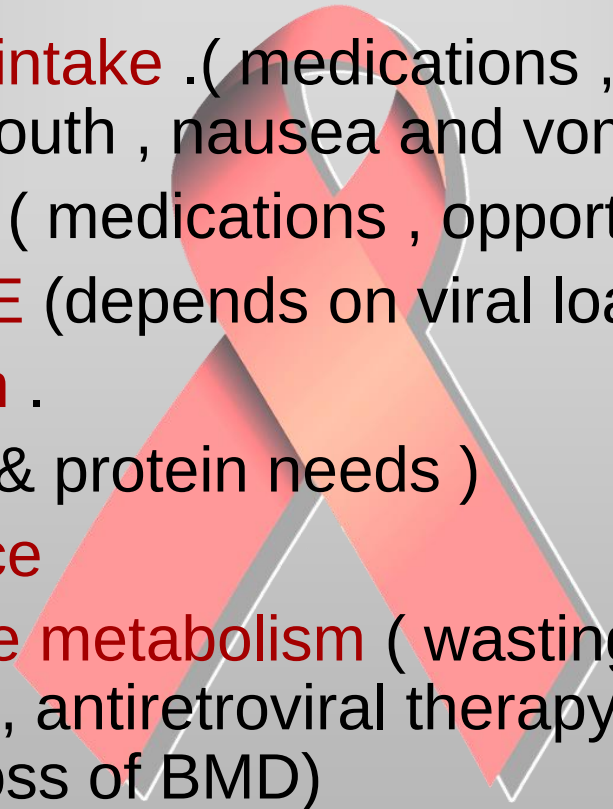
* Gaining fat on the abdominal area (central fat).

* Depletion of subcutaneous adipose tissue (sat) .with thinning of the arms & legs.

* Elevation in serum triglyceride .



Metabolic changes (cont..)



3: decreased oral intake .(medications , depression , disorders of the mouth , nausea and vomiting)

4: malabsorption . (medications , opportunistic infections)

5: elevation in REE (depends on viral load)

6: fever & infection .

(increase energy & protein needs)

7: insulin resistance

8: changes in bone metabolism (wasting , poor nutrition , corticosteroid use , antiretroviral therapy→ increase bone turnover →loss of BMD)

Goals of nutrition intervention

1- maintain or restore healthy body weight and morphology .

2- preserve or restore optimal somatic and viseral protein status.

3- prevent nutrient deficiencies or excesses known to compromise immune function .

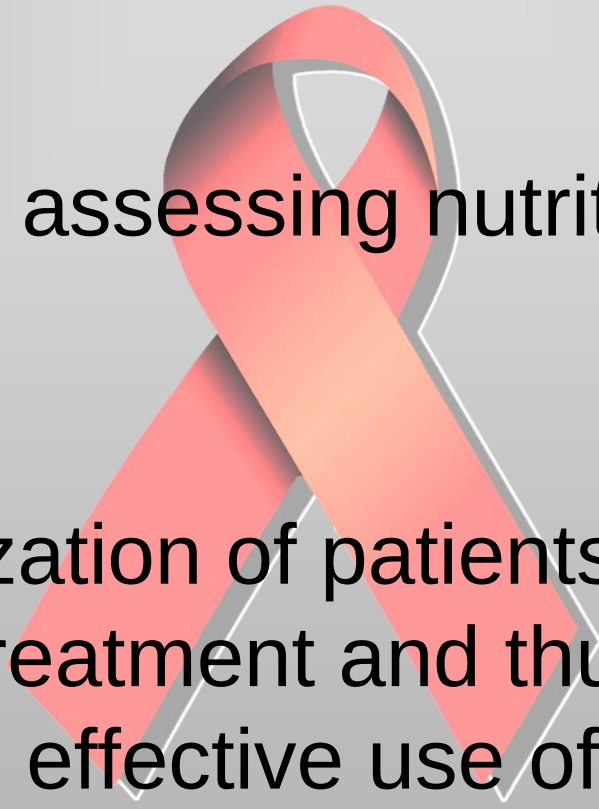
4- treat or minimize HIV or medication related complications that interfere with intake or absorption .

5- prolong & optimize quality of life .

Nutritional assessment

(subjective global assessment)

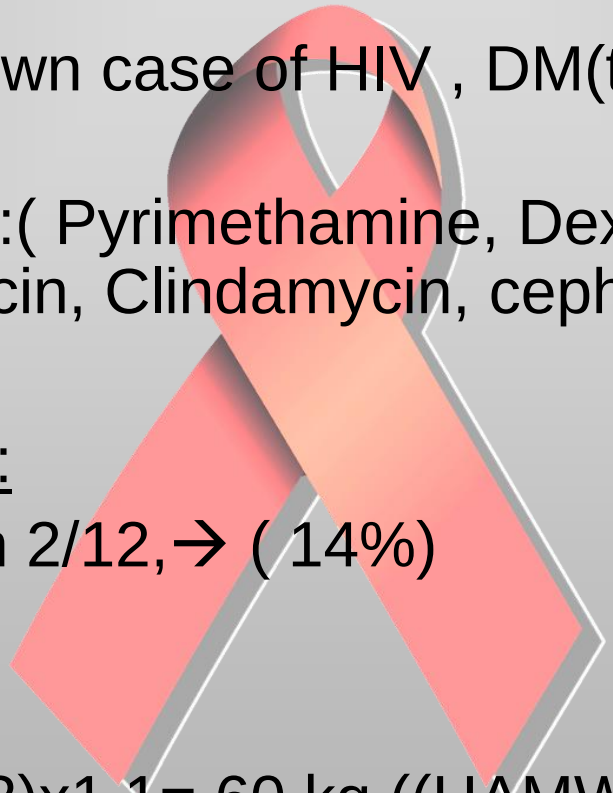
What is SGA?



Instrument for assessing nutritional risk in patients.

Allows prioritization of patients requiring more urgent treatment and thus may facilitate more effective use of resources.

SGA form



40 y.o , male , known case of HIV , DM(type 2) for 2 years , on OHG.

Other medications:(Pyrimethamine, Dexamethasone , Septra, Azithromycin, Clindamycin, cephalexin)

A. History :

1. Weight change :

Lost wt by 10 kg in 2/12,→ (14%)

Current wt : 61 kg

Ht : 163 cm

IBW : 48.1+(ht-152)x1.1= 60 kg ((HAMWI method))

BMI : 22.9 kg/m2 (normal)

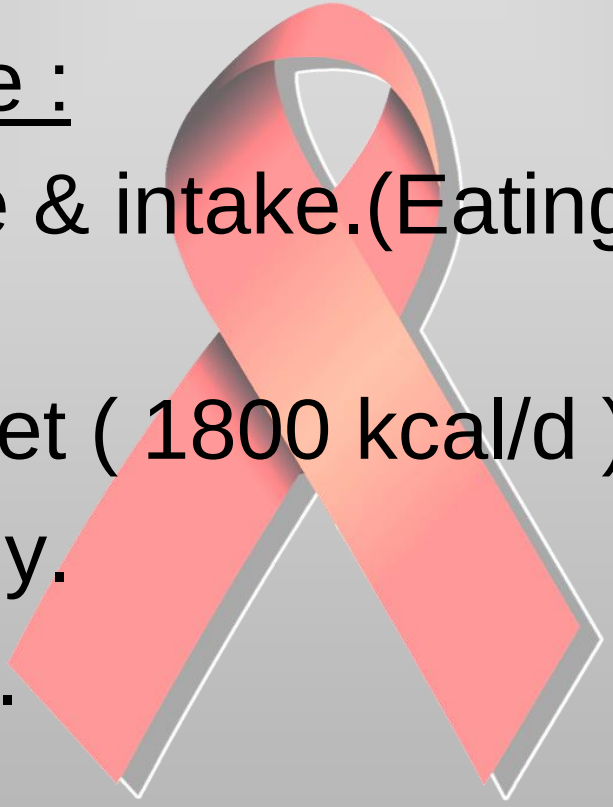
2. Diet change :

Good appetite & intake.(Eating the whole meal) .

On diabetic diet (1800 kcal/d).

No food allergy.

Likes all food .



3. GI symptoms :

Stable

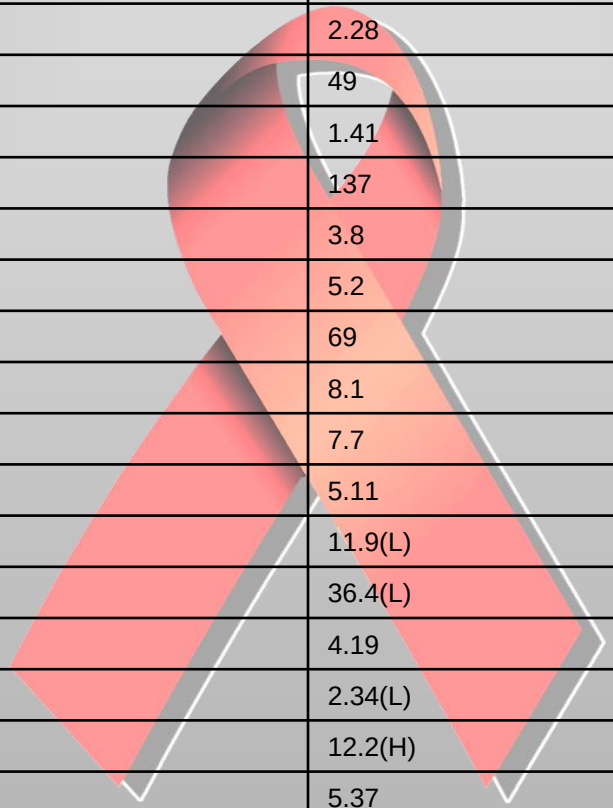
4. Functional status :

Optimal

5. Labs :

Labs

Date	Procedure	Result	Normal value
5/11/2008	PROT	80	60-83 G/L
	TBIL	6.7	3.4-20.5 UMOL/L
	CA	2.28	2.10-2.55 MMOL/L
	ALB	49	35-50 G/L
	PO4	1.41	0.74-1.52 MMOL/L
	NA	137	136-145 MMOL/L
	K	3.8	3.3-5.1 MMOL/L
	UREA	5.2	3.2-7.4 MMOL/L
	CRE	69	60-115 UMOL/L
	GLU	8.1	4.1-9.0 MMOL/L
	WBC	7.7	4.0-11.0 /L
	RBC	5.11	4.50-6.50 /L
	HGB	11.9(L)	13.0-18.0 G/DL
	HCT	36.4(L)	40.0-54.0 %
	NEUT	4.19	2.00-7.50 /L
	LYMPH	2.34(L)	1.50-4.00 /L
9/11/2008	WBC	12.2(H)	4.0-11.0 /L
	RBC	5.37	4.50-6.50 /L
	HGB	12.0(L)	13.0-18.0 G/DL
	HCT	38.3(L)	40.0-54.0 %
	NEUT	9.94(H)	2.00-7.50 /L
	LYMPH	1.58	1.50-4.00 /L
	CD4#	.02(L)	0.40-1.30/L



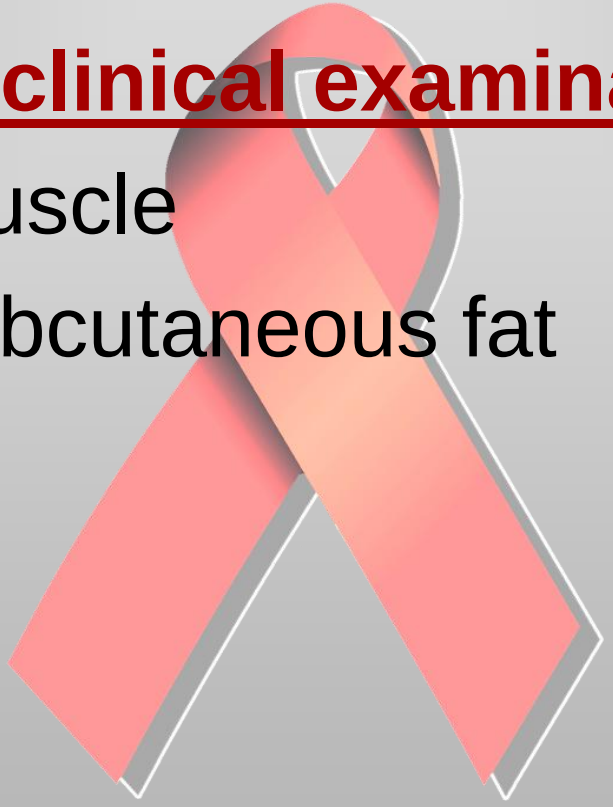
B. Physical / clinical examination :

+ve loss of muscle

+ve loss of subcutaneous fat

-ve Edema

-ve ascitis



C. SGA rating / diagnosis :

Grade (B) → moderately malnourished .

D. Nutritional plan & intervention :

Requirements:

Energy =(35-40)kcal/kg/d=(2135-2440)kcal/d

protein= (1.5)g/kg/d. = (91.5)g/day

Fluid =(30-35)ml/kg/d = (1830-2135)ml/d

According to this requirements :

Will Provide high protein , high caloric , diabetic diet (2200 kcal).

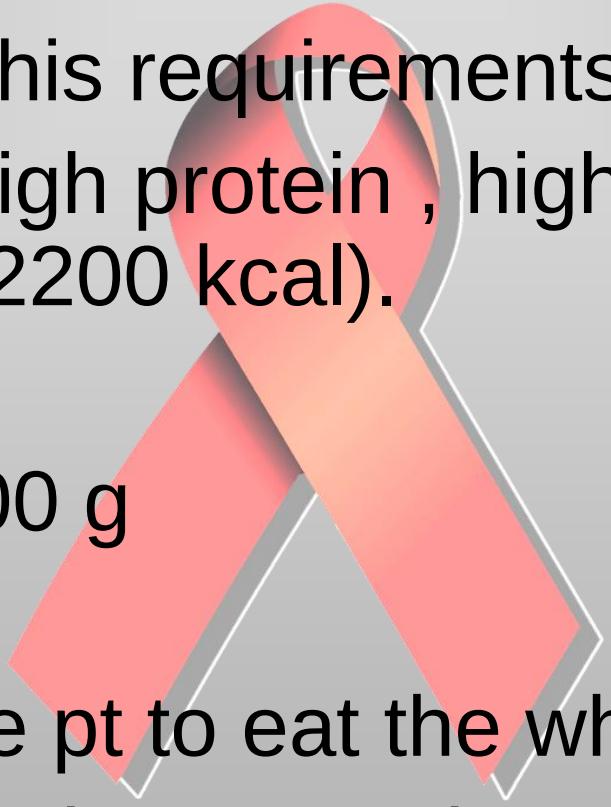
Cho : 55%

P : 20 % = 100 g

Fat : 25 %

Encourage the pt to eat the whole meal.

Monitor the intake , wt , labs of the pt.



Recommendations for discharge

*Educate the pt about: •
the importance of high protein , high caloric diet to his situation . •

*monitor B.G level by diet & medications. •

*How to apply these tips to his diet (by food servings) . Eg:
10 servings (starch) → ⇧ complex CHO, ⇩ simple sugars.
3 servings (low fat milk) •
4 servings (fruits) •
6 servings (veg) •
6 servings (med fat meat) •

*Provide (1 pak/d) of Resource Diabetic supplement.

*Encourage the intake of mono & poly unsaturated fats & decrease cholesterol & saturated fats in diet .

Recommendations (cont..)

*Fluids intake is similar to normal individuals (8-10)cups/d.

*Recommend the pt to take daily multivitamin-mineral supplement .

*Encourage him to do regular physical activity .

* educate the pt & family about food safety.

*F/U the pt (monthly)

F/U

1: anthropometry : wt,BMI,SFT,MMC

2: biochemical data: BG, ALB, pre ALB, UREA, CRE, liver profile , lipid profile, HGB, HCT.

3: clinical data: muscle & fat loss, edema, ascitis .

4: dietary changes : intake, appetite, GI symptoms , if compliant to diet.

5- need for diet plan changes .

Figure 1: First AIDS patient

Thank you for listening …

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