WOKSHOP IV – TYPE 2 PATIENTS WITH COMPLICATIONS : CONSENSUS GUIDELINES FOR MINIMUM BASIC CARE

COMPLICATIONS FOR TYPE 2 DIABETES DIAGNOSIS MELLITUS

The complications of type 2 diabetes are:

Microvascular
- Retinopathy
- Neuropathy
- Nephropathy

Macrovascular
- Coronary Artery Disease [CAD]
- Cerebrovascular disease
- Peripheral vascular disease

Associated conditions
- Infections
- Pregnancy
- Metabolic and drug related complications

RISK FACTORS FOR COMPLICATIONS :

The factors that determine risk for complications include :

- Diabetes related risk factors
  - Duration of diabetes
  - Age of onset
  - Level of glycemic control
- Associated uncontrolled hypertension
- Associated dyslipidemia
- Smoking or tobacco chewing
- Obesity , stressful lifestyle and physical inactivity
- Family history of premature inschemic heart disease and nephropathy.
- Pregnancy.
- Postmenopausal diabetic women.
- Long-term treatment with NSAID's , oral contraceptives, aminoglycosides, and exposure to radio contrast medium.

DIAGNOSIS

Retinopathy

Suspect retinopathy if the patient has the following .

Signs and symptoms
- Diminished or blurred vision
- Sudden lowering of vision
- Distortion of a straight line

Screening
- Check for visual acuity
- Examination of the fundus of the eye helps in early diagnosis . It is recommended that a fundal examination should be done at diagnosis of diabetes and subsequently at least once every year.

Nephropathy

Suspect nephropathy if the patient has the following

Signs and symptoms
- Pallor
- Oedema
- Hypertension

Screening
- Routine urine examination for presence of proteinuria
- Serum creatinine > 1.2 mg/dl.
- If the above two test are normal, repeat the tests once every year. A "micral test" once every year is recommended if feasible.

Neuropathy

Suspect diabetic neuropathy if the patient has the following

Signs and symptoms
- Parastehsias, numbness, pain and ulcer in the limbs.
- Mechanical deformity of the feet
- Diplopia
- 4Other signs and symptoms of autonomic neuroaphty

Screening
- Screen for reflexes, sensory and motor function and postural fall of BP at the time of diagnosis of diabetes and annually thereafter.

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Coronary Artery Disease [CAD]

The following should arouse the suspicion of CAD

Signs and symptoms

Chest pain

Sudden onset of breathlessness or breathlessness on exertion

Oedema

Fatigue and weakness

Family history of premature ischemic hear disease [IHD]

Screening

An ECG should be done if the above symptoms are present at diagnosis of diabetes and yearly if the patient is asymptomatic.

Blood pressure should be measure at every visit.

Cerebrovascular Disease :

Diagnosis of cerebrovascular disease should be suspected in the presence of signs and symptoms suggestive of transient or permanent ischemic paralysis or neurological deficit.

Signs and symptoms

Sudden onset of motor weakness and/or sensory loss in one half of the body or a limb or one side of the face.

Sudden onset of vertigo and unsteadiness of gait

Sudden loss of speech and/or ability to communicate

Sudden onset of severe excruciating headache

Sudden onset of involuntary movements or seizures

Sudden loss of consciousness

Screening

Sever hypoglycaemia as well as severe hyperglycaemia mimic features of cerebrovascular stroke. Neurological deficits caused by hypoglycaemia and severe hyperglycaemia and severe hyperglycaemia are eminently treatable and must be ruled out by a capillary blood glucose measurement, using a glucometer.

If hypoglycemia is present treat by administering IV glucose and/or subcutaneous glucagons before transferring to hospital.

Refer the patient to specialist or hospital for further assessment and treatment.

Peripheral Artery Disease (PAD) :

The following signs and symptoms should arouse suspicion

Signs and symptoms

Caludication, and/or pain at rest and nocturnal pin

Past or present foot ulcer

Cold extremity

Skin and nail changes

Discoloration

Screening

Clinical examination of patients with diabetes should include examination of foot pulses. This should be done at least once a year, but preferably more often and when symptoms and signs suggest PAD.

Refer patient to a specialist or hospital if there is a suspicion of peripheral artery disease.

Dyslipidemia :

It is recommended that a lipid profile should be done once a year in diabetic patients if practically feasible. This should include measurement of serum triglycerides and cholesterol.

Infections

Genital infections are not uncommon in persons with diabetes and a pelvic examination may be needed to confirm the diagnosis.

A complete clinical examination to rule out the presence of infections should be done in all persons with diabetes. In particular concurrent infection.

At diagnosis, a chest-X-ray is recommended to rule out the presence of tuberculosis and cardiomegaly. X-ray chest should be repeated at any time when there is a suspicion of tuberculosis.

Pregnancy

Patients are encouraged to have a planned pregnancy and to refer to a specialist prior to becoming pregnant. If the patient is already pregnant, referral to a specialist is recommended.

Referrals : When and Where

The patient should be referred to a Physician/Diabetologist when first diagnosed and yearly thereafter, if well controlled.

The General Practitioner should be responsible for routine care for his patients between the referral periods.

If eye complication is suspected, the General Practitioner should refer the patient directly to an Ophthalmologist.

For all the other complications, referrals should be done to the Physician/Diabetologist who may in turn take expert opinions from a Cardiologist, Neurologist, Nephrologist, Orthopaedic or Vascular surgeon.

In addition, referrals to the Physician/Diabetologist should be made under the following special situations :

Repeated hypoglycaemia

Blood pressure not controlled with more than two drugs

An unconscious patient suspected to have hypoglycaemia should first be given glucose and then referred

A patient with suspected acute myocardial infarction or an acute stroke should be directly referred to a hospital.

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