Role of General Practitioner in the Management of Patients Suffering from Non-Alcoholic Fatty Liver Disease

Sir,

Non-alcoholic Fatty Liver Disease (NAFLD) has a far-ranging spectrum of liver damage featured by the accumulation of fat in liver cells which is not due to alcohol (< 20 g/day for females and <30 g/day for males) or chronic liver disease (CLD) secondary to drugs (tamoxifen, amiodarone, methotrexate) or any viral etiology (HCV), toxins in the environment, Wilson's disease, malnutrition, hemochromatosis, or any autoimmune disease and when hepatocytes show more than 5% steatosis.[1] NAFLD is now the leading cause of CLD in the western world with a prevalence of about 30% in the general population and is expected to involve 1/3rd of the population till 2030.[2] Prevalence in Pakistan, as shown in different studies, ranges from 14% to 47%.[3] NAFLD stems from metabolic syndrome and people with diabetes mellitus type II (T2DM) with NAFLD have worse outcomes than those not having T2DM. Obesity is also a major contributing factor. According to Asian consensus guidelines, BMI >25 kg/m^2 and waist circumference >90 cm in men and >80 cm in women are considered obese.[4] These two specific groups of people are more prone to NAFLD but attention should also be given to the fact that NAFLD can also occur in thin and lean persons indicating its wide range of causation and hence a newer term, Metabolic Associated Fatty Liver Disease (MAFLD), is introduced in which obesity or T2DM or features of metabolic syndrome (hypercholesterolemia, hypertension) are also present along with NAFLD.[1]

Gold standard for diagnosis of NAFLD is liver biopsy, but it is a painful invasive procedure. Fatty liver index (FLI) and hepatic steatosis index (SI) can be utilised to estimate the risk of NAFLD or direct measuring of liver fat by ultrasonography can also give an idea.[2] Many tests are available for detecting fibrosis in the future course of disease including FIB-4 index, APRI, BARD, NAFLD fibrosis score, fibroscan and vibration controlled transient elastography.[5]

NAFLD is an asymptomatic disease in its initial stages, and the majority of patients present with generalized weakness and vague abdominal pain. On laboratory assessment, liver function tests (LFTs) are sometimes deranged. In advanced disease, ascites, jaundice, and splenomegaly are present along with cirrhosis of the liver and hepatocellular carcinoma. Majority of patients with NAFLD have cardiovascular disease (CVD).[1]

The many drugs are under consideration for treatment and are currently in phase III and phase IIb trials. These include Vitamin E, pioglitazone, statins, GLP-1 ligand and receptor agonists, peroxisome proliferator-activator receptors agonists, Farnesoid X receptor agonist (Obeticolic acid), Galectin-3 antagonist, and apoptosis signal-regulation kinase-1.[2]

The primary healthcare physicians come across these patients in their daily practice. Keeping in view the prevalence of T2DM, obesity, and sedentary lifestyle in Pakistan, all primary care physicians should counsel their patients regarding the importance of maintaining healthy weight, healthy diet, and regular exercise with periodic reinforcement on every visit.

People with T2DM, obesity, and metabolic syndrome should be considered especially for NAFLD.

The management of NAFLD in primary care focuses on the diagnosis of the disease as early as possible and starting modification of risk factors and provision of appropriate medical treatment according to the patient's condition and referral to a gastroenterologist. It is a multi-disciplinary team effort with dietician, endocrinologist, fitness trainer, psychologist, and gastroenterologist. Early diagnosis and proper long-term follow-up with lifestyle modifications can slow the disease progression and prevent complications.

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REFERENCES

1. Roeb E. Excess body weight and metabolic (dysfunction)-associated fatty liver disease (MAFLD). *Visc Med* 2021; **37(4)**:273-80. doi: 10.1159/000515445.
2. Zhu B, Chan SL, Li J, Li K, Wu H, Cui K, Chen H. Non-alcoholic steatohepatitis pathogenesis, diagnosis, and treatment. *Front Cardiovasc Med* 2021; **8**:742382. doi: 10.3389/fcvm.2021.742382.
3. Abbas Z, Zaheer R. Non-alcoholic fatty liver disease: A real threat in Pakistan. *J Pak Med Assoc* 2020; **70(12(B))**: 2437-40. doi: 10.5455/JPMA.95891.
4. Misra A, Chowbey P, Makkar BM, Vikram NK, Wasir JS, Chadha D, *et al*. Concensus group. Consensus statement for diagnosis of obesity, abdominal obesity and the metabolic syndrome for Asian Indians and recommendations for physical activity, medical and surgical management. *J Assoc Physicians India* 2009; **57**:163-70. PMID: 19582986.
5. Ginès P, Castera L, Lammert F, Graupera I, Serra-Burriel M, Allen AM, *et al*. Population screening for liver fibrosis: towards early diagnosis and intervention for chronic liver diseases. *Hepatol* 2022; **75(1)**:219-28. doi.org/10.1002/hep.32163.

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