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EFFICACY OF HOMOEOPATHIC REMEDIES IN MANAGEMENT OF TYPE 2 DIABETES MELLITUS: A CLINICAL STUDY

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ABSTRACT

Diabetes Mellitus is metabolic disorder characterized by excessive glucose in blood circulation mainly resulting from inadequate insulin secretion, insulin action or both and insulin resistance. **Objective:** Efficacy of homoeopathic remedies in management of type 2 diabetes mellitus. **Material and Method:** 30 cases of type 2 diabetes mellitus were selected and homoeopathy medicines were prescribed for these cases. **Results:** Over a period of clinical study, there were significant reduction signs and symptoms of type 2 diabetes mellitus and among 30 cases 10 (33.33%) cases have improved, 12 (40.00%) cases have recovered and 8 (26.66%) cases not improved. **Conclusion:** we can conclude that *homoeopathic medicines* are very effective in treating the cases of type 2 diabetes mellitus with holist way.

KEYWORDS: Type 2 diabetes mellitus, Homoeopathy, outcome.

INTRODUCTION

Diabetes mellitus is a syndrome with disordered metabolism and inappropriate hyperglycemia due to either a deficiency of insulin secretion or to a combination of insulin resistance and inadequate insulin secretion to compensate. Type 2 diabetes mellitus (T2DM) group comprising milder forms of diabetes that occur predominantly in adults but occasionally in juveniles. More than 75% of Indian people are under this classification. India is second higher people suffering with this disease in the global.[1] In United Kingdom, Sri Lank, Bangladesh, United States of America, Australia and golf countries have been found to

much higher prevalence of diabetes than the native populations of the respective countries.[2-4] Premature coronary heart disease is due to excessive fat in intra abdominal region and insulin resistance.[5]

Tissue insensitivity of insulin has been noted in most type 2 diabetes mellitus patients irrespective of weight and has been attributed to several interrelated factors. These include a putative genetic factor, which is aggravated in time by additional enhancers of insulin resistance such as aging, a sedentary life style and abdominal visceral obesity and deficiency in the response of pancreatic B cells to glucose. Hyperglycemia due to resistance to insulin and impaired B cell response to glucose appear. Epidemiologic data indicate strong genetic influences, since in monozygotic twins over 40 years of age, concordance develops in over 70% of cases within a year whenever one twin develops type 2 diabetes mellitus. 60 – 70% obesity patients of North Americans, Europeans or Africans are suffering with type 2 diabetes, 30% cases are from Chinese and japans patients' suffering with type 2 diabetes mellitus. 7 studies had been published detailing the prevalence of the diabetes by the end of the 1960s.[6-11] Migrant Asian Indian more prone to get type 2 diabetes mellitus and metabolic syndrome[12] in various parts of the global such as Fiji, United Kingdom and Mauritius.[3,4,13-19] This Indian people have more fasting insulin levels compared to the white people.[21,22] Diabetes increased due to junk food and over eats of sweets in Indian school children.[23-25]

Clinical Features

Type 2 diabetes mellitus clinical features are Polyuria, thirst, weakness or fatigue, polyphagia with weight loss, recurrent blurred vision, vulvovaginitis or pruritus, peripheral neuropathy, nocturnal enuresis. Mild hypertension is often present in obese diabetics. Eruptive xanthomas on the flexor surface of the limbs and on the buttocks and lipemia retinalis due to hyeprchylomicronemia can occur in patients with uncontrolled type 2 diabetes mellitus who have a familial form of hypertriglyceridemia.

Investigations

Urinalysis (glucosuria, ketonuria), blood testes (glucosetolerance test, glycoslated hemoglobin, fasting and post pandal) and lipoprotein abnormalities (LDL, HDL, cholesterol) in diabetes.

Complications of diabetes

In microvascular complications are diabetic cataracts, diabetic retinopathy[26,27], glaucoma, diabetic Neuropathy include microalbuminuria, progressive diabetic nephropathy[28-30] (Indian people have less rates compared to the white individuals)[31], gangrene of the feet, diabetic neuropathy include with peripheral neuropathy (distal symmetric polyneuropathy, isolated peripheral neuropathy, painful diabetic neuropathy), autonomic neuropathy (management of autonomic neuropathy, management of erectile dysfunction), skin and mucous membrane complications. In macrovascular complications are coronary artery disease[32] and peripheral vascular disease. The coronary artery disease also higher in Indian people compared to the western countries.[33] Peripheral vascular disease is rare in Indian patients compared to USA and UK.[34,35] More than 25% of Indian peoples suffer with diabetic foot ulcer during their life time[36] and 8% of Tuberculosis.[37] The Research trials showed that type 2 diabetes mellitus can be prevented in peoples at high risk of developing the disease using lifestyle modification, drugs or a combination of the two.[38-41]

MATERIAL AND METHODS

Period of study

The study was conducted on the cases available from February 2017 to till dated. Cases were recorded on the basis of clinical examination, past and family history taking and necessary investigation.

Primary source

All cases were collected from outpatient department, in patient department, and peripheral department of Sri Ganganagar homoeopathic medical college, Sri Ganganagar, Rajasthan, India.

Inclusion criteria

- Patients were both male and female.
- Age between thirty one to seventy years.
- Diagnostic criteria were made on blood examination of T2DM and examination.

Exclusive criteria

- Patients above seventy one years and below thirty years T2DM.
- Diabetes along with main systemic diseases
- Pregnant.

- Diagnosed with deficiency in G_6P.
- Can't understand the English language was not taken.

Study design

All cases were included according to inclusion and exclusion criteria**.** Case taking did according to homeopathic case performa.

Past history

The past history was also considered in the case taking.

Family history

Family history was taken, to know the any chronic disease in the family.

Personal history

Personal history was recorded according to the homoeopathic case performa.

General physical examination

General physical examination of the patient and vitals was done in all case.

Systemic examination

All detail systemic examination of CNS, CVS and GIT carried out. If any abnormal findings were present, it was noted.

Investigations

The following investigations were carried out in cases of T2DM.

- Urine analysis: Urine sugar and Microscopic test to eliminate DN.
- Blood glucose: Fasting blood sugar, post prandial blood sugar levels and Random blood sugar.
- Other: HBA_1C, thyroid, ECG, Chest X - ray (AP/later view), lipid profile.

Diagnosis

The conclusion of type 2 diabetes mellitus is made based on clinical examinations and blood investigations.

Follow up

Follow up was done up to end of the clinical study.

Steps of homoeopathic prescription

Homoeopathic medicines[42] were prescribed according to the patient's susceptibility.

Evaluation

All Symptoms were evaluated, according to the order of their importance.

Repertorisation

All Cases were repertorised.

Selection of remedy

The drug was selected from the reportorial result.

Potency and repetition

The indicated medicine was prescribed in an appropriate potency, based up on the susceptibility of the patient.

Statistical methods employed

Statistical method was applied (Chi square test).

Ethical clearances in the study

The ethical clearance was taken from the institution for the clinical research. Ethical qualities were taken according to Indian council of medical research rules.

Result criteria

The results were divided in to three categories.

Improved: Decreased of the investigations values and severity of symptoms for a period less than six months.

Not improved: Recurrent attacks of signs and symptoms and values of type 2 diabetes mellitus, even after defined period of prescriptions.

Recovered: Decreased of the investigations values (fasting blood sugar, post prandial blood sugar levels) and severity of symptoms for a period more than six months.

Research hypothesis

There is an efficacy of homoeopathic remedies in management of type 2 diabetes mellitus.

Null Hypothesis

There is no efficacy of homoeopathic remedies in management of type 2 diabetes mellitus.

RESULTS

Among 30 type 2 diabetes mellitus patients with mean ± SD, maximum cases were observed in age group of 31 – 40 years in 4 (13.33%) cases, 41 – 50 years in 15 (50%) cases, 51 – 60 years of age group had 4 (13.33%) cases, 61 – 70 years of age group had 7 (23.33%) cases. Patients were in the male 19 and 11 patients were females (table 1, graph C). Associated symptoms were the symptoms that had no direct relation with the disease. In the clinic research study, 8 medicines were prescribed to the patients according to the symptoms similarity and the following observations were made. Kali carb is the most effective medicine out of the total ten Homoeopathic medicines chosen for the study. During the clinical study it was found that the next effective medicine for the treatment of type 2 diabetes mellitus is lycopodium in 6 cases 20% incidence, pulsatila is indicated in 5 (16.67%) cases, acid phos, nat sulp, cal carb 3 (10.00%) cases, kali phos in 2 (6.67%) cases, nux vom 1 (3.33%) cases (Graph G). The cases results fixed were recovered, improved and not improved, the outcome of the study. Among 30 cases 10 (33.33%) cases had improved, 12 (40.00%) cases had recovered and 8 (26.66%) cases were not improved (table 2).

Table 1: Baseline Characteristics

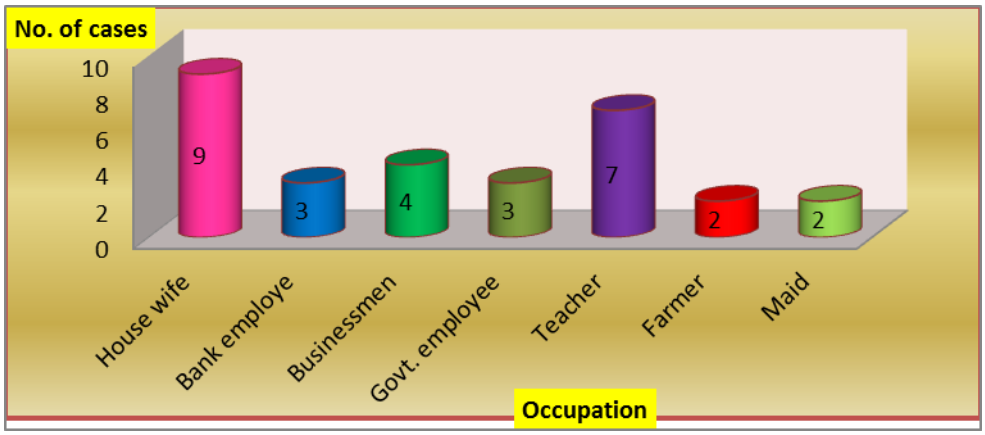
(A) Distribution of cases according to gender

Sl. No	Age of the patient	No. of Cases	Percentage (%)
1	31-40	4	13.33
2	41-50	15	50.00
3	51-60	4	13.33
4	61-70	7	23.33
	Total	30	100

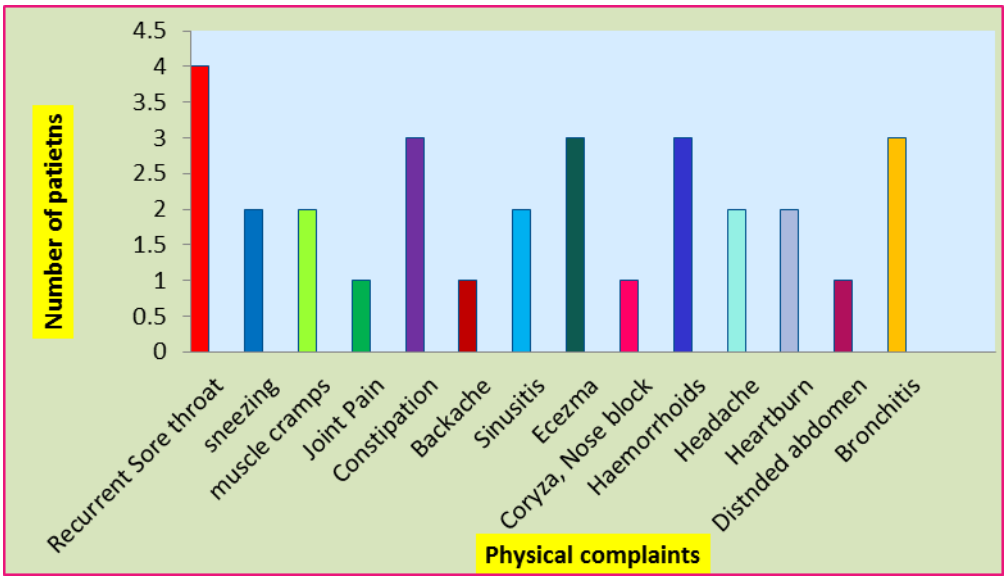
(B) Distributions of cases according to age group

Sl. No	Age of the patient	No. of Cases	Percentage (%)
1	Male	19	63.27
2	Female	11	36.63
	Total	30	100

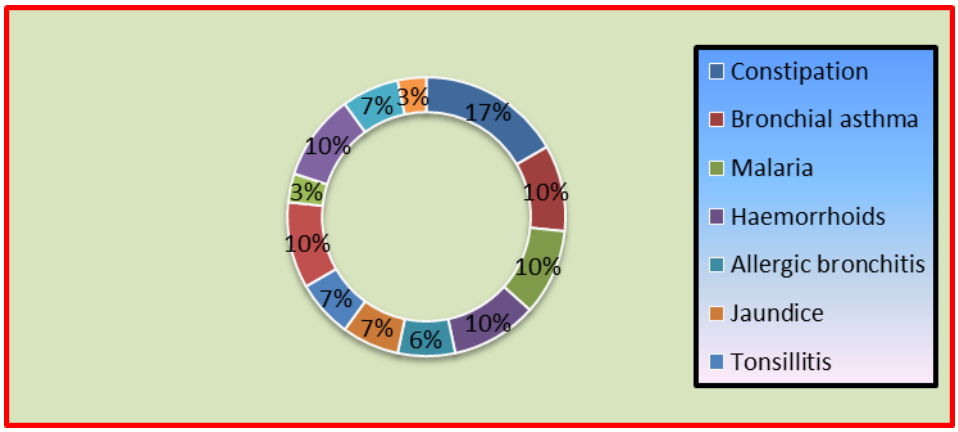
(C) Distribution of cases according to occupation



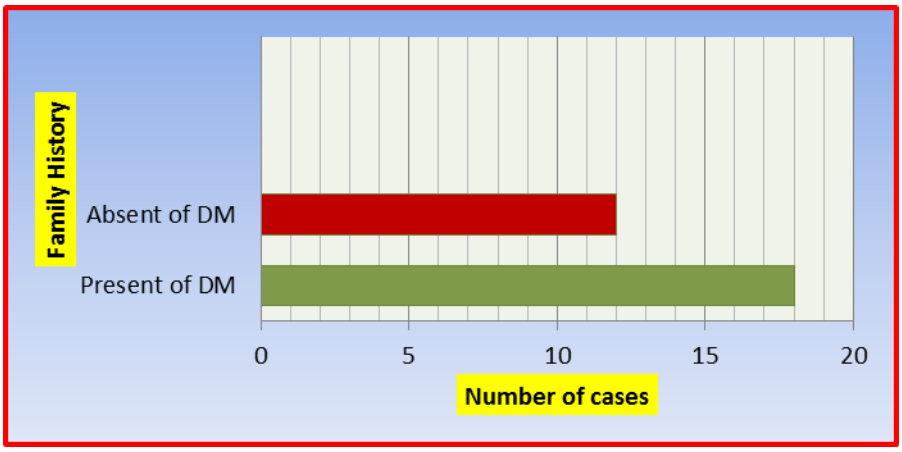
(D) Distribution of cases according to physical complaints



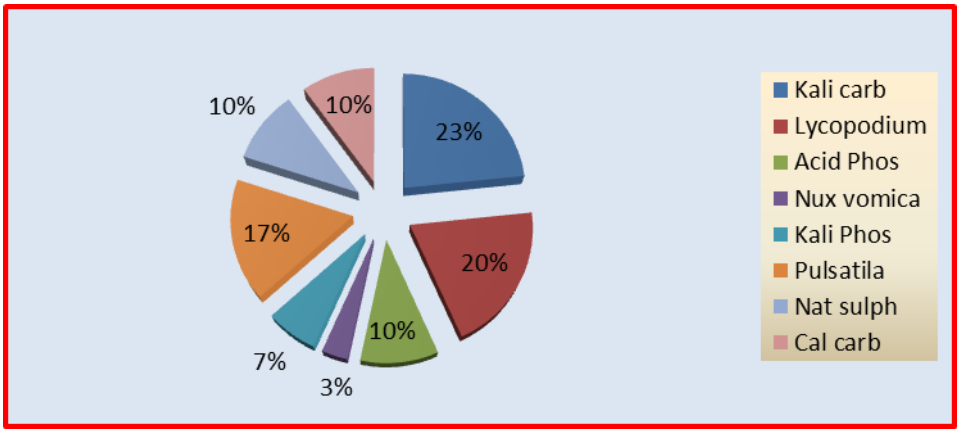
(E) Distribution of cases according to past history



(F) Distribution of cases according to family history



(G) Distribution of cases according to prescribed remedies



(H) Distribution of cases according to miasmatic back ground

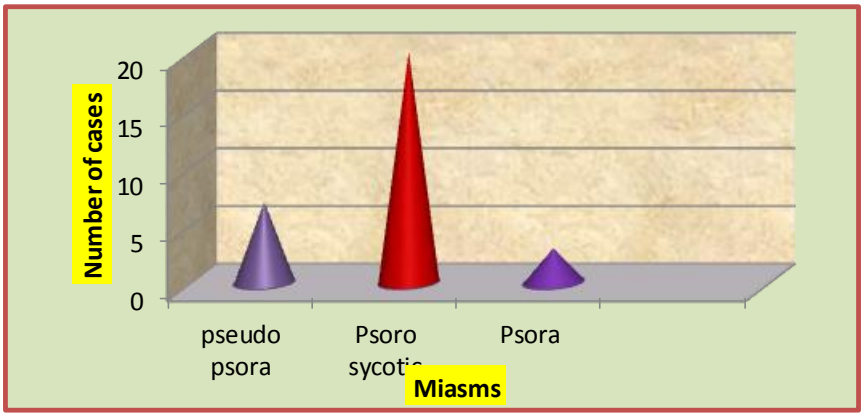


Table 2: Distribution of cases according to Results.

Sl. No	Results	No. of Cases	Percentage (%)
1	Recovered	12	40.00
2	Improved	10	33.33
3	Not improved	8	26.66
	TOTAL	30	100

DISCUSSION

The present clinical study continued thirty cases that satisfied the thought criteria to consider the viability of homeopathic cures in the administration of T2DM. Most normal casualties of T2DM were older individuals. As in my examination out of thirty patients, the most elevated rate of T2DM was seen in the age group 41-50 years pursued by 61-70 years and least 51-60 and 31-40 years. Thus the patients from 40 or more were most influenced with type 2 diabetes mellitus unmistakably saw in old individuals and occurrences were generally diminished in youthful grownups. (Table no A). In my examination the above pattern appears, the most well known unfortunate casualty to T2DM are, males that were 63.27% and rest 36.63% were females (table no B).

So as to find out the sort of occupation that inclines or encourages the sustenance of T2DM and furthermore to realize that occupation where it was ordinarily pervasive the word related history of the patients was considered. Housewives (9 cases) were seen as most helpless gathering in the populace, as they include 30.00%. As this examination was led in a tropical and creating nation, India where the a greater amount of life, different propensities, inactive ways of life, mental pressure and absence of wellbeing instruction to avoid diabetes mellitus, are predominantly liable for type 2 diabetes mellitus. This is all around archived, as rate of T2DM is higher in creating nations in view of progress in way of life, different propensities, stationary propensities and mental pressure it influences both genders and in 31-40 years or more age gatherings (Graph B). Out of 30 subjects, 4 cases were business man, 2 farmers, 7 teachers, 3 Government workers, 3 bank workers and 2 house keepers were seen during my examination (chart no C). As the clinical investigation (PhD proposal) was completed with 30 subjects, separate changes were noted during the treatment. At first on the primary visit, the entire case was being taken with estimation of blood glucose substance utilizing examinations, for example, RBS, FBS, PPBS and HbA1c. Every one of the patients was instructed about diet and routine and parity sugar pre diet. Patients were advised to audit once in fifteen days and later on once in month. As in my examination homeopathic polycrest/sacred cure was endorsed with a perspective on points and goals of displaying study. Kali carb is most every now and again showed in 7 out of 30 cases making 23.33% of frequency, lycopodium in 6 cases making 20% occurrence, pulsatila is shown in 5 cases making 16.67%, corrosive phos, nat sulp, cal carb 3 cases stamping 10.00%, kali phos in 2 case checking 6.67%, nux vom 1 case checking 3.33% (diagram no G). A portion of the cases indicated enhancements and hardly any no upgrades on the grounds that in somewhere in the

range of barely any cases, the totality may have not been precisely made where in other scarcely any cases, there were patients who couldn't be moderate for doing the examination without fail or some other individual reasons which were not desired development.

As research study demonstrated that repetitive sore throat were 4 (13.33) cases affected, contrasted with other physical objections (chart d) and pseudo psora 7 (23.33) cases in miasmatic back ground (diagram H). The clinical research additionally demonstrated that clogging 5 (16.66) cases in previous history (chart E). As in my phd research study it was seen that out of 30 cases 18 cases which is of 60.00% of frequency indicated the familial foundation of type 2 diabetes mellitus and 12 cases making 40.00% occurrence indicated the nonappearance of familial history (diagram no F). Unequivocally showing that genetic is fundamental job in type 2 diabetes mellitus. The cases results fixed were recouped, improved and not improved, the result of the investigation in among 30 cases 10 (33.33%) cases have improved, 12 (40.00%) cases have recuperated and 8 (26.66%) cases not improved [table no I]. The consequences of this clinical investigation recommend that the homeopathic meds were adequately sheltered and successful in the treatment of type 2 diabetes mellitus.

The T2DM cause serious complications to human beings. It prompts intense to acute complications (micorvascular) as well as chronic complications (macrovascular). In this manner, it is suggested that more research studies must be discovered to find out the exact antidiabetic effects of *homoeopathic medicines* on T2DM. The review finalized that positive outcome in controlling in T2DM with allopathic drugs (antidiabetic). But Homoeopathic medicine was not endorsed in none of the research studies/investigation in T2DM (type 2 diabetes mellitus).

CONCLUSION

After the research study, we conclude the regularity of type 2 diabetes mellitus is most basic metabolic inadequacy all through the world that adversely impacts on wellbeing and improvement. We should move past current philosophy, and figure out how to better asses those populaces in danger for the improvement of type 2 diabetes mellitus paying little heed to the simultaneous ailments. Proof based practice rules need to incorporate indicative estimates that distinguish the adjustment in blood glucose status ahead of schedule to maintain a strategic distance from movement of type 2 diabetes mellitus, and explicit the board objectives that incorporate treatment systems including what establishes a good reaction to blood glucose treatment. Homeopathy by tending to all reasons for individual and

their total arrangement of indications through the comprehensive methodology is seen to be valuable to other arrangement of treatment primarily in the ailments like sort 2 diabetes mellitus.

Homeopathy treatment is basically founded on the protected methodology focusing on the basic reason (miasm) and re establishing the crucial standard back to ordinary, there by fix/improvement (in instances of sensible ailments like diabetes mellitus) of the ailment happens. In other arrangement of medication, the treatment of type 2 diabetes mellitus is generally palliative treatment rather than remedial. They normally use insulin treatments and oral hypoglycemic drugs which have their very own reactions.

A couple of individuals have responses, for instance, low glucose. Opposite symptoms of insulin treatment is growing, redness or tingling at the site of infusions, intensifying of the diabetic retinopathy, changes in apportionment of muscle to fat proportion (lipodystrophy), unfavorably susceptible responses sodium maintenance and general body expanding, a sort of chest burden dyspnea and cough, weight reduction decrease and weakness and muscle torment. So, by taking homeopathic drug helps in keeping the blood glucose level in ordinary. Here in this examination not many cases allopathic medicine was step by step decreased and many were carefully on homeopathic treatment alone. Homeopathic cures are help particularly for the individuals who are having co horrible conditions, and to the individuals who are probably going to have extreme symptoms from allopathic medications. Our remedies oust the disorder reactions just as upgrade over all status of the patient. By homeopathic medicines, we can recover T2DM without any side effects through the regular secretion of insulin. In mature age and touchy people where intestinal gut gets delicate to insulin treatment causing nausea, vomiting, stomach fullness, malnutrition, diarrohea.

Homeopathic prescription alongside general the board as diet diagrams and exercise rules can do the best to the patient and their viable application has been evaluated on resulting subsequent meet ups. During the examination it was seen that in practically every one of the cases the homeopathic meds reacted well. There were noteworthy decreases of signs and side effects in type 2 diabetes mellitus with homeopathic medications. In this manner, we can presume that a *homeopathic medicine* utilized with all encompassing methodology is extremely successful in treating the cases of type 2 diabetes mellitus.

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Limitation

- Few cases were taken (30 members).
- Time limited study i.e. less than 3 years.
- Patients registering only to SGHMC&RC, Sri Ganganagar, outpatient department, in patient department and peripheral outpatient were considered.

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Nil.

Conflict of Interest

None declared.

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