Chapter 6
CONCLUSION
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Phase I

- In the present study, we found very high prevalence in musculoskeletal (60.11%) and foot (67.1%) complications in subjects with T2DM.
- Low back pain, early fatigue, and shoulder adhesive capsulitis were the common complications among musculoskeletal complications observed in subjects with T2DM.
- Dry skin, fissures, callus, and ingrown nails were the common complications found among foot complications observed in subjects with T2DM.
- Foot complications like Peripheral neuropathy, fissures and callus was associated with duration of T2DM more than 5 years.
- Therefore, early screening for musculoskeletal and foot complications should be incorporated in routine diabetes evaluation to detect early changes and prevent the progression of the complications.

Phase II

- In the present study, structured foot health program is found to be very effective in modifying foot biomechanics and improve quality of life in subjects with T2DM.
- In addition to aerobic exercise, intrinsic foot muscle strengthening is also one of the important component to delay the structural changes in the foot. Therefore, it is also recommended to use musculoskeletal ultrasonography as a tool in the early screening for foot complications.
Hence, we conclude in the present study that structured foot health program along with standard care can be an important tool of management in achieving glycemic control and preventing foot complications by modifying foot biomechanics without any major adverse events in patients with T2DM.
CLINICAL IMPLICATIONS

- Structured foot health program is an imperative part of the existing form of therapies, to modify the foot biomechanics and quality of life in subjects with T2DM.

- Aerobic exercise along with standard care can result in an enhanced glycemic control as compared to standard care alone.

- In addition to aerobic exercise, intrinsic foot muscle strengthening is also one of the important component to delay the structural changes in the foot. Therefore, it is also recommended to use musculoskeletal ultrasonography as a tool in the early screening for foot complications.

- Self-foot care and foot health education is an important tool to improve the quality of life in T2DM.

- The findings of this study are relevant to the national policy makers for planning better means to fight the epidemic of diabetes and diabetic foot complications.
STRENGTH OF THE STUDY

- This is the first study to document on overall prevalence of musculoskeletal and foot complications in T2DM in Indian population.
- In India, this is the first study to design a structured foot health program which includes major important components of diabetic foot care like aerobic exercises, intrinsic foot muscle strengthening, self-foot care and foot health education.
- First study to incorporate intrinsic foot muscle strengthening as a part of structured foot health program and to conclude that this can prevent foot deformities and forefoot plantar pressure.
- First study to use musculoskeletal ultrasound as a tool to examine plantar soft structures along with intervention.
LIMITATIONS OF THE STUDY

There were few limitations in the present study:

- Phase I: T2DM Subjects were recruited from tertiary hospital, hence results cannot be generalized to the community.

- Phase II: included both T2DM subjects with and without peripheral neuropathy, hence this would have influenced the effect of treatment.
FUTURE RECOMMENDATIONS

- Future studies should focus on describing foot and musculoskeletal complications at the community level.
- Future studies can focus on analyzing the effect of structured foot health program with respect to severity of peripheral neuropathy and peripheral vascular disease.
- Future studies can focus on analyzing Effect of structured foot health program on a large sample size using MRI as a tool to examine structural changes in the foot.