P0706- Importance of Developing Podiatric Service in Georgia-Case Report Illustrating Problems Associated with Diabetic Foot

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Background : Long-term diabetes complications develop gradually. Uncontrolled diabetes increases the risk of complication development, that eventually may become disabling or even life-threatening. People with diabetes are at increased risk of peripheral arterial disease and neuropathy, that lead to frequent and often severe foot problems - infection, gangrene and amputation. Recent statistics indicates that approximately a quarter of all people with diabetes worldwide at some point during their lifetime will develop foot ulcers. The development of foot problems is not an inevitable consequence of diabetes. Indeed, most foot lesions are preventable. As the Podiatric Service is not developed in Georgia, there are no trained nurse-podiatrists and no education is carried out, the World Diabetes Foundation project Diabetic Foot Care Implementation put an ambitious goal - DFS prevention and care improvement in several regions of Georgia.

The **Aim** of the present clinical case study is to illustrate how serious the DFS problem is for people with diabetes in Georgia, what problems they are facing and how timely revealing, proper management and patient education improves the situation.

Methods: The clinical case is typical for Georgian population with diabetes and DFS. A 64-year-old male BX has type2 diabetes mellitus; the condition was diagnosed 12 years ago. On examination his weight was 105 kg, BMI-33.7kg/m², HbA1c-10.2%, T/A - 150/90mmHg. Patient was treated with Metformin (1000 mg/twice daily). The patient has never received diabetes education and did not know how to take care of his feet to prevent foot problems. Neuropathy tests (monofilament test -positive, tip-term - positive, vibration test –positive, prick test - positive) and neurological examination were performed. Diagnosis: T2DM was poorly controlled. Diagnosis of neuroischemic ulcer (location- pad of the left foot, size - 7cm, not healed for past 6 months) was put. Treatment: Thiocetic acid (50 ml IV/once daily, 20 infusion and p/o 600 mg/once daily, for 3 month); insulin therapy with long acting insulin analog (15 IU at bedtime) was initiated. The patient attended the first education course, he was taught to take care of the ulcer; foot care basics, such as ankle exercises, special cloud foot traffic, nail trimming, foot wear selection, etc. Besides, such aspects of diabetes management as healthy lifestyle, carbohydrate restriction and count were discussed. Intensive blood glucose control was recommended and minimal skills were developed. It increased patient's knowledge and motivation to adhere to recommendations he received and treatment selected. Education was continued during regular monthly visit.

Results: During each monthly visit ulcer size was progressively diminishing (4cm – month 1, 2.2 cm – month 2,). Examinations at month 3 showed following results: HbA1c-6.7%, BMI-28.7kg/m²,T/A - 130/80 mmHg. The ulcer had healed. Treatment continued: insulin - dose reduced to 12UI, Metformin (1000 mg/twice daily). thiocetic acid p/o 600 mg/once daily, for 3 month. To increase remission length and avoid ulcer recurrence or new ulceration patient was advised to continue regular visits and supervision, proper foot care and diabetes education. At month 6: HbA1c-6.4%, BMI-27.5kg/m², T/A - 130/80 mmHg, no ulcer recurrence registered. Treatment continued: insulin dose reduced to10UI, Metformin (1000 mg/twice daily), thiocetic acid p/o 600 mg/once daily, for 3 month. After 9 months of treatment there was no ulcer recurrence, HbA1c-6.1%, BMI-26.5kg/m², T/A - 130/80 mmHg. The patient's mood and motivation remained high. The patient continues regular visits to the podiatrist and endocrinologist and adheres to treatment regimen selected.

Conclusion: According to the IDF Diabetes Atlas (2015) National Diabetes Prevalence for Georgia is 7.5% (around 300 000 people with diabetes), there is little doubt that burden of diabetes-related foot problems is very high, often diabetes is diagnosed when a patient is admitted to the hospital with serious foot problem. Implementation of timely revealing, proper diagnosis and management of DFS, patient education and adequate diabetes treatment will significantly reduce the rates of ulceration and amputations, as well as treatment costs. The clinical case study clearly indicates that qualified podiatric service, education and motivation of people with diabetes carried out at medical settings, are important for successful ulcer treatment, and can save limbs, that otherwise will be lost.