With 5% of the diabetic population, Champagne-Ardenne is one of the most affected by diabetes French regions. The diabetic foot is well represented and becomes a real public health problem.

Two processes causes foot ulceration in diabetic patients often intertwined: neuropathy and peripheral arterial disease. Present in 90% of cases of sensory neuropathy causes a delay of consultation, poor adherence to treatment and there is neglect on the part of the patient and sometimes the caregiver.

The initial assessment of the wound is essential to identify a strategy that will support multi necessarily professional. The metabolic balance, infection, discharge, arterial and local care: here are five essential points of the expertise of a diabetic foot wound.

Place of orthopedic surgery in the management must be redefined and considered supplemental to and not as a failure of medical treatment. In the hands of an experienced surgeon, the conservative surgical procedures on soft tissue during hypodermitis for example (excision of infected tissue drainage) and bone-conserving surgery during osteitis most often prevent amputation all reducing the healing time and antibiotics.

These surgeries cannot disrupt a major way the architecture of the foot and should strive to maintain functionality and avoid exposure to excess risk of recurrence (hyper side support).

This surgical care, rarely urgent, must be done in close consultation between physicans and surgeons.

Each healthcare professional is concerned and must participate in a consistent and appropriate care of this disease in order to reduce the number unfortunately stagnant amputation.

Further reading

http://dx.doi.org/10.1016/j.rehab.2013.07.204

CO12-002-e
Equipment of diabetic foot
J.-C. Dupre 1, M.-P. Talbot 1, 2
1 Centre d’appareillage, hôpital Villiers Saint-Denis, I, rue Victor-et-Louise-Monfort, 02310 Villiers Saint-Denis, France
2 Centre d’appareillage, hôpital Villiers Saint-Denis, I, rue Victor-et-Louise-Monfort, 02310 Villiers Saint-Denis, France
*Corresponding author.
E-mail address: jeanclaude.dupre@gmail.com

Keywords: Foot diabetic; Wounds; Discharge; Removable devices; Irremovable devices; Amputation

Risk diabetic foot imposes implementation of precautionary measures to avoid the appearance of a wound, to avoid its recurrence, and curative measures in case of ulceration.

Mechanical origin is most frequent mechanism and need discharge by eliminating hyper-pressure exercises. It is essential to obtain the healing. The realized discharge avoids the mechanical trauma at the origin of the delay of healing having an essential role in the arisen of complications.

Two systems of discharge are available: the removable devices validated by clinical trials and which bring better results by insuring a forced compliance, and the irremovable devices are mostly very used mass or custom-made by specialized centers.

To be able to unload wounds among which the locations, the areas and the depths are very variable, the equipment must be particularly individualized.

The realization of removable orthoses on molding allows to preserve the profits of a moderated walking by respecting the hurt zones and by authorizing the access for the local care.

While we are in the presence of often asymptomatic ulcerations, it is imperative that the equipment constitutes a proportionned answer so that it is systematically worn from the first step.

The good observance as for the port of the removable devices is an imperative condition.

The forecast of the diabetic foot is dominated by the risk of an amputation; this one, when it will have become inevitable, will be realized after multidisciplinary opinion and will have to take into account possibilities of equipment, allowing the patient to obtain the best functional state.

Further reading
http://dx.doi.org/10.1016/j.rehab.2013.07.205

CO12-003-e
Treatment of diabetic foot ulcers in a multidisciplinary team: A prospective study of 304 cases with follow-up of 1 year
G. Hu Van
Service de diabétologie, CHU Pitié Salpêtrière, 47–83, boulevard de l’Hôpital, 75013 Paris, France
E-mail address: ghavan@sfr.fr

Introduction.– The poor results of healing and high rate of amputation of diabetic foot ulcers come from a poor management of the treatment. We studied the management in our diabetic foot department of 304 new diabetic foot ulcers with a follow-up of 1 year.

Patients and methods.– We included 347 patients from July 2009 to December 2010. All patients were admitted in our diabetic foot unit. The management was multidisciplinary: diabetologist, physiatrists, radiologist, vascular surgeon, orthopaedic surgeon, nurses, physiotherapist.

Amputation rate, healing rate and death rate were analysed after 1 year of follow-up.

Results.– We had 12% of lost in follow-up. We followed 304 patients during 1 year. Average age was 65, sex-ratio 2.2, 69% men, BMI 28.5 kg/m², average age of diabetes 18.7 years. Average age of ulcers was 157 ± 392 days.

We used the Classification of UT of the diabetic foot ulcers:

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Total (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>57</td>
<td>12</td>
<td>4</td>
<td>73</td>
</tr>
<tr>
<td>B</td>
<td>5</td>
<td>9</td>
<td>29</td>
<td>43</td>
</tr>
<tr>
<td>C</td>
<td>60</td>
<td>22</td>
<td>4</td>
<td>86</td>
</tr>
<tr>
<td>D</td>
<td>21</td>
<td>15</td>
<td>66</td>
<td>102</td>
</tr>
<tr>
<td></td>
<td>143</td>
<td>58</td>
<td>103</td>
<td>304</td>
</tr>
</tbody>
</table>

After 1 year, decease rate was 9%, amputation rate: below-knee: 5.7%; above-knee: 1.4%, chopard: 0.7%, lisfranc: 6.1%, transmetatarsal: 6.1%, toe: 11.5%. Healing rate was 67% (108 ± 40 days).

Survival rate with healing ulcers without amputation was: 59.4%.

Multidisciplinary management of diabetic foot ulcers allows to get a good healing rate and a weak amputation and decease rate. It allows to decrease the major amputation rate.

http://dx.doi.org/10.1016/j.rehab.2013.07.206

CO12-004-e
Complex neurorehabilitation programme improves quality of life of patients with diabetic polyneuropathy and diabetic foot
Y. Koleva
Université de médecine de Sofia, faculté de médecine, clinique médecine physique et de rééducation, Dospat 6, 1606 Sofia, Bulgaria
E-mail address: yvette@cc.bas.bg

**Keywords:** Neurorehabilitation; PRM programme; Diabetes mellitus; Diabetic polyneuropathy; Diabetic foot; Metabolic syndrome

In the last years, a significant increase of the frequency of diabetes mellitus (DM), diabetic polyneuropathy (DPNP) and diabetic foot (DF) is observed. In our opinion, this interdisciplinary problem (between neurology, physical and rehabilitation medicine) is actual and practically important. Current article presents our results of the efficacy of the application of a complex physiotherapeutic and rehabilitation programme in a total of 842 patients with type 2 diabetes mellitus (non-insulinodependent diabetes mellitus [NID-DM]), distal symmetric sensorimotor diabetic polyneuropathy (DPNP) with peroneal paresis and neuropathic diabetic foot (DF), distributed in two groups: group 1 treated only with kinesitherapy, and group 2 is divided into a lot of subgroups for analysis of capacities of pre-formed modalities. The rehabilitation programme includes: preformed modalities (low frequency currents for Novocain or Nivalin iontophoresis in lower limbs, transcutaneous electroneurostimulation/TENS/, electrical stimulations for peroneal nerve and innerved muscles; low intensity and low frequency magnetic fields for impulse magnetotherapy; lasertherapy; deep oscillation); soft tissue techniques (massages, post-isometric relaxation, stretching, mobilizations, etc.); active kinesitherapeutic complex (including analytic exercises, augmentation of the basic movement activity, occupational therapy). Comparative analysis of results shows significant differences in the efficacy of application of the complex rehabilitation programme on both groups of patients. We explain our hypothesis for the mechanisms of action of natural physical factors (on motor dysfunction and on quality of life of patients) and of preformed physical factors (especially electrostimulations, TENS, LASER, deep oscillation - on the signs and symptoms of DM, DPNP, DF).

Author discusses probable pathogenetic mechanisms of negative influence of some present patterns of the metabolic syndrome (dyslipidemia, visceral obesity) for inhibition of the health processes provoked by the neurorehabilitation programme. We underline the role of International Classification of Functioning in the processus of assessment of DPNP and DF patients. For better organization of rehabilitation, a multidisciplinary neurorehabilitation team is necessary (including general practitioner; specialists of neurology, physical and rehabilitation medicine; sometimes – cardiologist, endocrinologist, orthopedic specialists; nurse, kinesitherapist, psychologist, sociologist).

http://dx.doi.org/10.1016/j.rehab.2013.07.207