MANAGEMENT OF DIABETIC RETINOPATHY IN KINSHASA (DRC)

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INTRODUCTION

- Diabetes Mellitus is an emerging disease in DRC as in most of developing countries.
- Kinshasa: 30,000 diabetic patients known and among them 12,000 are followed in our medical facilities.
- The current estimated prevalence of Diabetes mellitus and diabetic retinopathy are respectively about 5% and 28-35% in DRC.
INTRODUCTION(CONT’D)

- 2004: Starting of Laser treatment of diabetic retinopathy in Kinshasa thanks to the partnership of Rostock University and under the leadership and supervision of Professor Guthoff.

- Nowadays: 4 medical centers where laser photocoagulation is used in DRC: University clinic/Kinshasa, St Joseph Hospital, University clinic/Lubumbashi, University clinic/Bukavu.
OBJECTIVES

- To present the current situation of Diabetes Mellitus in DRC
- To describe how we manage Diabetic Retinopathy in Kinshasa
FACILITIES FOR MELLITUS DIABETES MANAGEMENT AT ST JOSEPH HOSPITAL

- 52 diabetic centers (outreach).
- 15 Clinics.
- 1 diabetic clinic (Saint Joseph Hospital)
  services:  - consultations and reanimation
            - education unit
            - diabetic clinic for children
            - angiography and laser unit
            - diabetic feet care unit
            - diabetic pregnant women unit
ACTIVITIES
1 TRAINING

Doctors (Gp) and Nurses

Ophtalmoscopy and screening methods of diabetic retinopathy
3. DIAGNOSTIC METHODS

Direct Ophthalmoscopy
- Diabetic centers, clinics (doctors and nurses trained).
- Screening campaign (doctors, nurse trained and ophtalmologist).
- Pediatric diabetic clinic (ophthalmologist).

Indirect Ophthalmoscopy using slit lamp (Volk +90D or +78D)
- Saint Joseph hospital (ophthalmologist).
2. Screening

- Health centers in outreach (Nurses).
- Clinics (Doctors and trained Nurses, Ophthalmologist)
- Pediatric Diabetic Clinic (Ophthalmologist). 
- Diabetic Clinic and Eye department at Saint Joseph Hospital (Ophthalmologist).
VISUCAM (Fig. 1; Carl Zeiss Meditec 2009)

Fig. 2 & 3: NPDR with ischemic maculopathy
SCREENING AT ST JOSEPH HOSPITAL

DIABETIC CLINIC,
LASER UNIT
TREATMENT
5. TYPE OF COAGULATION PERFORMED

- Panretinal
- Focal
- Grid

DIODE LASER 810nm IRIDEX
Fig: RDP with preretinal hemorrhage before treatment.

Fig: 15 months after treatment.
6. COMMON WORK ST JOSEPH HOSPITAL – ROSTOCK UNIVERSITY

- From 2004: Hands-on training for laser coagulation by Rostock team in Kinshasa
- Clinical examination of diabetic patients (training and exchanges) once in a year

- 2008: ICO-Fellowship in medical retina (diagnosis and treatment) in Rostock University (Prof. Guthoff) and Ulm University (Prof. Lang).

- Research and paper publication:
  Diabetische Retinopathie und diabetisches Fussyndrom bei Diabetikern in Kinshasa (DRC)
Diabetische Retinopathie und diabetisches fussyndrom bei Diabetikern in Kinshasa (DRC)
STATISTICAL DATA

- Screening: 120 patients/month (St. Joseph Hospital).
  300 patients/campaign (1/yrs).
  200 children and young patients (1/yrs)

- Angiography: 5 patients/week.

- Treatment: 385 eyes of 277 Patients
  sex: male (55%) & female (45%)
  average age: 55+10ans
  diabetes type1: 17%
  type2: 83%
Evolution (after treatment):
- 80% visual acuity improvement or stabilisation.

- 20% Deterioration of visual acuity due to maculopathy, vitreous hemorrhage and retina detachment.
Others pathologies treated with laser:

<table>
<thead>
<tr>
<th>Pathologies</th>
<th>Number</th>
<th>%</th>
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<tbody>
<tr>
<td>Diabetic Retinopathy</td>
<td>385</td>
<td>89,120</td>
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<tr>
<td>Central Veinous Occlusion</td>
<td>36</td>
<td>8,333</td>
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<tr>
<td>Retinal Tears</td>
<td>5</td>
<td>1,157</td>
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<tr>
<td>Macroaneurysms (maculopathies)</td>
<td>4</td>
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<td>Sickle cell Retinopathy</td>
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<td>0,463</td>
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CONCLUSIONS AND RECOMMANDATIONS

- Diabetic Retinopathy is a public health problem and is becoming one of the commonest causes of blindness in DRC.
- Treatment of Diabetic Retinopathy by Laser improved vision in our patients and contributed to prevent blindness due to Diabetes.
- Diode Laser in our department helped us avoiding to transfer people abroad and to save money of families.
- Complicated retinopathies needed surgery (posterior) vitrectomy and endolaser that we couldn’t perform.
- This presentation advocates the need to reinforce early detection in the community and to improve access for eye care to avoid complications.
THANK YOU FOR YOUR ATTENTION

DANKE