Diabetes & Indien & Graviditet

Screening av diabetes i ett fattigt landsbygdsområde i Indien

Initiering av en Diabetesklinik på Pravara Rural Hospital

Planering av screening av diabetes under graviditet

Carina Ursing MD PhD Diabetolog

Institutionen Södersjukhuset

Diabetes & Indien & Graviditet

Hur och varför hamnade jag i Indien ?

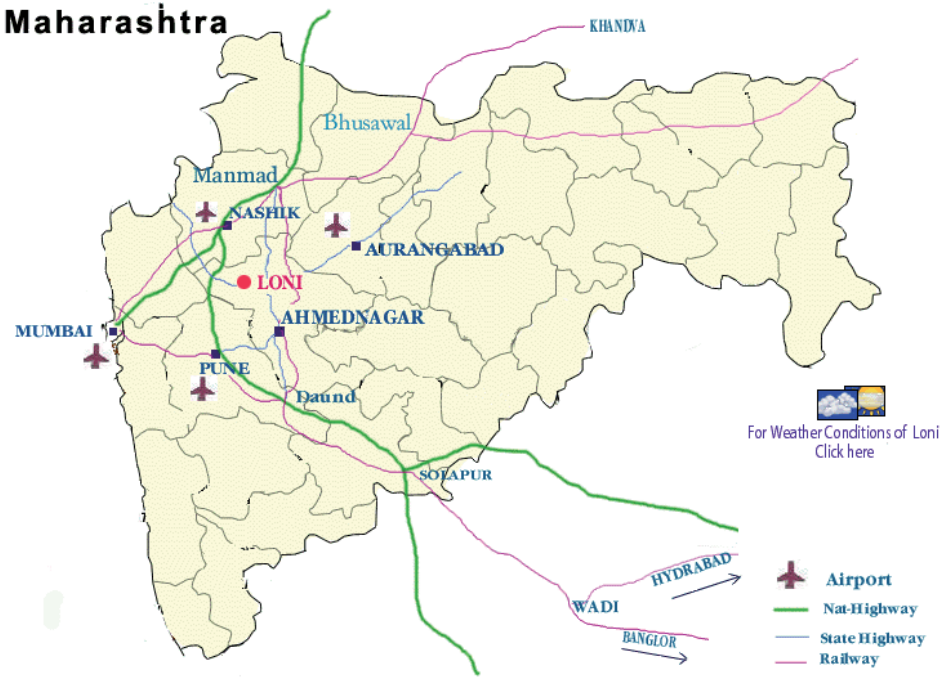
Varför screenade jag för diabetets i ett utvalt område på landsbygden ?

Varför initierade jag en diabetesklinik på Pravara Rural Hospital ?

Vilken nytta kan dessa kunskaper och insatser ha för befolkningen ?

Vad kan göras framöver ? Egna resurser

Screening for diabetes in Loni, Distr Ahmednagar, Maharastra, India




PRAVARA HOSPITAL


Pravara Medical Trust's
Pravara Rural Hospital, Loni PH. 02422-273600
MOBILE CLINIC
Supported by
Swedish international Development Cooperation Agency (Sida)

Screening Area


फिरता दवाखाना


बेटी बचाओ
save the girl child


समूह साधन केंद्र


उपकेंद्र आडगाव
लोकेश्वर


शिवल
Gift For You


MH.17
T.7113

PHC Primary Health Care Center

MDC

Diabetes Mellitus
Urban vs Rural difference

The Times of India , Sat feb 5, 2011:

Obesity and Diabetes shows urban-rural difference

Hypertension shows little urban-rural difference

[Dr Anoop Misra Fortis´Diabetes, Metabolic diseases and Endocrinology centre]

When is diabetes going to show little urban-rural difference ?

Diabetes Mellitus in Asia

Global epidemic disease

Increasing rapidly

Asian countries at the highest risk.

International Diabetes Federation (IDF) 2025

80% of the disease burden low/middle-income countries

60% of the world´s diabetes population in Asia

[*Chan J.C.N et al 2009]*

Diabetes Mellitus in India

India is at the top-10 in Asia with the highest number of persons with type 2 Diabetes in 2007 and projected data 2025 (IDF)

	Diabetes Mellitus	
	2007	2025
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China	39809	59270
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Bangladesh	3848	7416

Values in thousands

[*Chan J.C.N et al 2009*]

Diabetes Mellitus in the Rural Area

2414 individuals ≥ 30 years Nagpur, Maharastra,
135 (5.6%) diagnosed with diabetes mellitus

[Jonas J.B. 2010]

44523 individuals (age 15-64 years)

prevalence	rural area	3.1%
	pre-urban (slum)	3.2%
	urban area	7.3 %

[*Mohan W. 2008]*

Rural Diabetes Mellitus screening Setup

One year- Jan-Dec 2011

12 Camps – area covering 1.80.000 habitants

Every 5th person ≥ 19 y of approx 3000 individuals

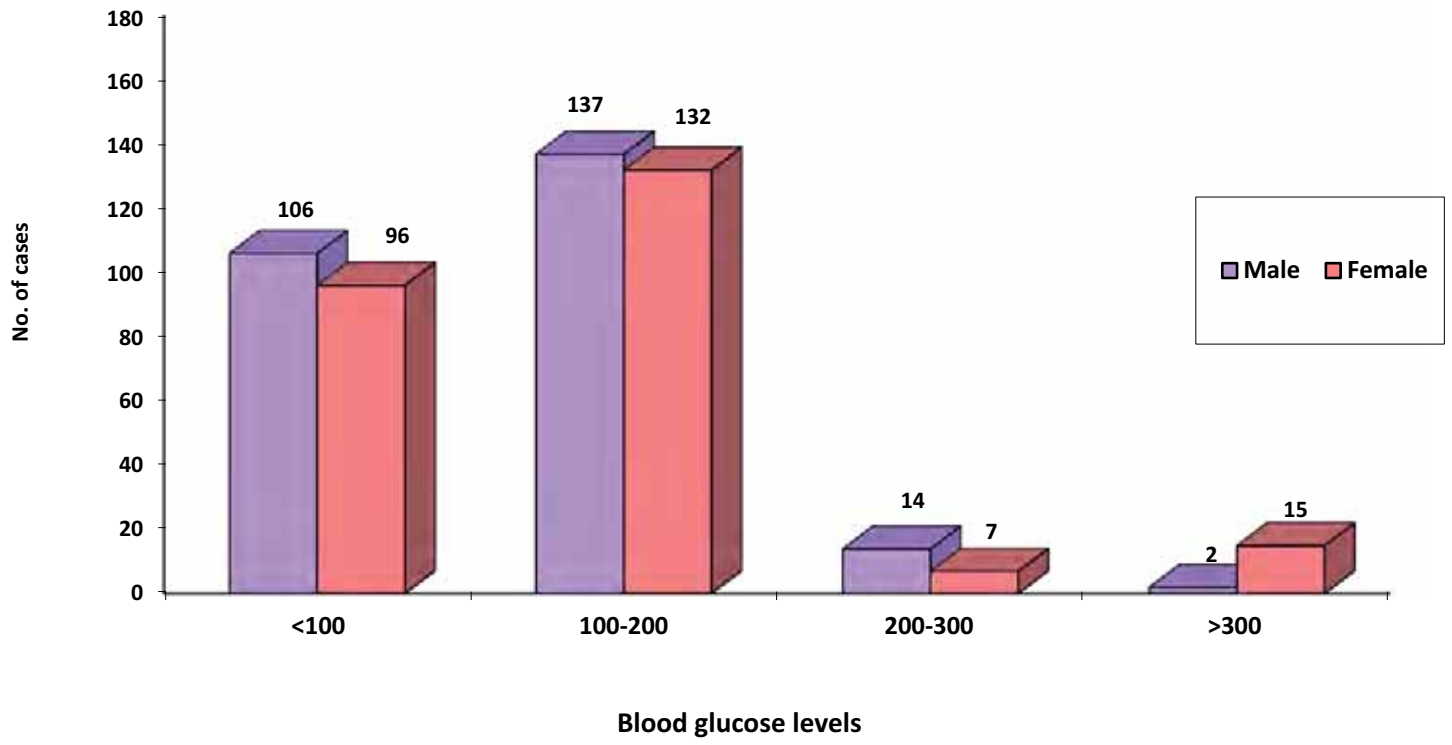
539 individuals tested with capillary B-Glucose (glucometer)

38 (~ 7%) individuals; B-glucose randomly >200mg/dl (ADA)

Significant correlation B-glucose – BP, BMI, Age

MDC

B-Glucose Levels – Individuals in a Rural Area



Prevalence of Diabetes Mellitus in a Rural Setup

PREVALENCE

SCREENING

KNOWLEDGE

DIABETES MELLITUS

PREDIABETES

RISK FOR DIABETES

DIAGNOSTIC

GUIDELINES

PREVENTION

- Bilder diabetes klinik

THANK YOU FOR LISTENING

Dr Carina Ursing MD PhD Diabetologist, Karolinska Institutet, Sweden

Karolinska Institutet

We want you !

Alla kan göra någonting

Ett gott hjärta får näring
Ödmjuk inställning till livet
Känna sig behövd
Ökad kunskap

Study on Diabetes in a Rural Setup

Dr Carina Ursing MD PhD
Karolinska Institutet
Stockholm
Sweden

Introduction

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Hypertension shows little urban-rural difference

Dr Anoop Misra Fortis´diabetes, metabolic diseases and endocrinology centre

Future – Diabetes is going to show little urban-rural difference

The Rural people do not have to make the same misstake as the Urban people

Background

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Mohan W. 2008

Aim

Study of prevalence of Diabetes and its anthropometric correlates in a Rural Setup

Object

- To identify the individs having Diabetes
- To study the correlations between anthropometic variables
- To impact selected recommendations

Methodology

Study Design: Cross Sectional Study (CS)

Study Area: Area covered by Multi Diagnostc Camps (MDC)

Study Sample: Individual

Individs entering the MDC. Purposive and convinient sampling.

Study Time period: 2011 February – 2012 January

Inclusion criteria: ≥ 30 y, Individs entering the MDC, Consents, Non-pregnancy

Exclusion critera : < 30 y, Individs not entering the MDC, Non-consents, Pregnancy

Methods

Measure tape (standardized) (free man tape)

Manuel portable weighting machine (standardized)

Bloodpressure –sphygmomanometer (Diamond deluxe (2/3 overarm))

Stethoscope (adult)

Glucometer – Accu check - Aviva

Data analysis

Statistical Software SPSS 17.1

Mean

Standard deviation

Correlation

Percantiles

Proportion

Criterias

Blood glucose level

>200mg/dl (ADA)

Blood Pressure

>130/80 (WHO)

BMI 18.5-24.99 (Asia 23)

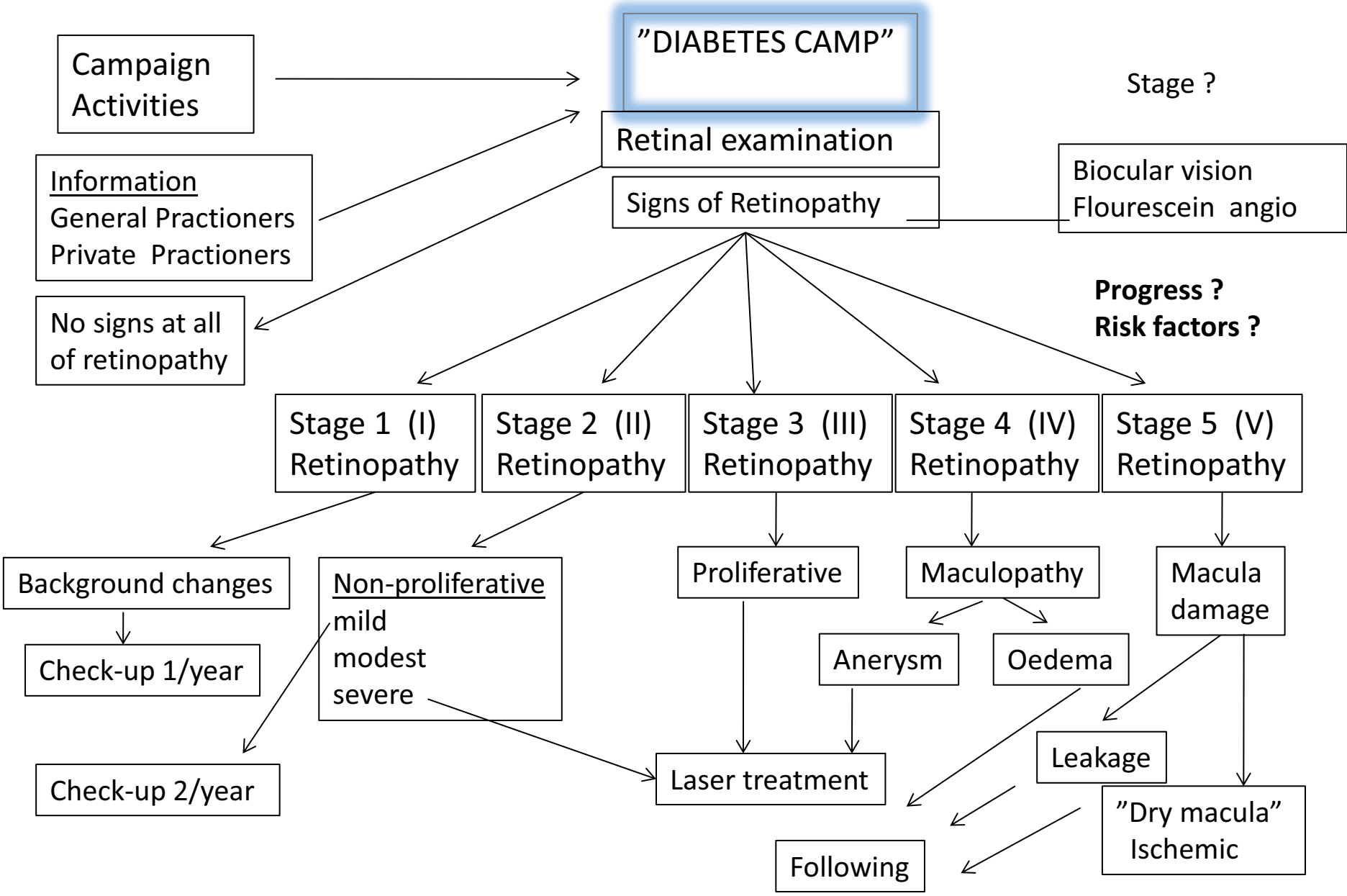
MDC

Study on the Prevalence of Ocular Manifestations in individuals with Diabetes Mellitus in a Rural Set-up

Prof Mrs S Bangal
Pravara Medical Institute
Loni
India

- Ocular Manifestations- diabetes mellitus with myopia and the correlation with glaucoma
- Retinopathy
- Cataracts
- Muscle palsy
- Infections

Screening for Diabetes Mellitus by Retinal Examination



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COMPLICATIONS

- Makrovascular — Macroangiopathy
  - Myocardial infarction
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- Microvascular — Microangiopathy
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  - Neuropathy

Background

Two studies have showed almost the same prevalence of diabetic retinopathy in patients with diabetes mellitus in the rural area as in the urban area, approximately 18%.

Nirmalan P.K. et al 2004 & Rani P.K. et al 2007

Earlier the prevalence was predicted to be lower in the rural area.

Background

MICROVASCULAR complications

specific to diabetes

Ocular manifestations

diabetic retinopathy

Background

Treatable Diabetic Retinopathy (DR) – Asymtomatic
DR becomes symtomatic - almost always untreatable

Undiagnosed individuals -already have developed complications before they are diagnosed to have diabetes

Suresh S. et al 2005

Worst Case Scenario:
Undiagnosed sight threatening ocular manifestations

Main cause for blindness in all countries worldwide is diabetes

Aim

Study on the Prevalence of Ocular Manifestations in individuals with latent Diabetes Mellitus in a Rural Set-up

Objective

- To identify the individs having treatable Ocular Manifestations
- To study the correlations between Ocular manifestations and diabetes mellitus
- To impact selected recommendations

Ocular Manifestations

- Diabetes mellitus with myopia and the correlation with glaucoma
- Retinopathy
- Cataracts
- Muscle palsy
- Infections

Methodology

Study Design: Cross Sectional Study (CS)

Study Area: Area covered by Multi Diagnostic Camps (MDC)

Study Sample: Individual
Individs entering the MDC and who are detected to have blood glucose level ≥ 200 mg/ml Purposive and convinient sampling.

Study Time period: 2011 April – 2012 March

Inclusion criteria: Consents
Individs entering the MDC detected to have blood glucose level ≥ 200 mg/ml

Exclusion critera : Non-consents
Individs entering the MDC detected to have blood glucose level < 200 mg/ml

Methods

Bloodpressure –sphygmomanometer (Diamond deluxe (2/3 overarm))

Stethoscope

Glucometer – Accu check – Aviva

Eye examination; Vision testing, Slit lamp examination and Opthalmoscopy, Tonometer

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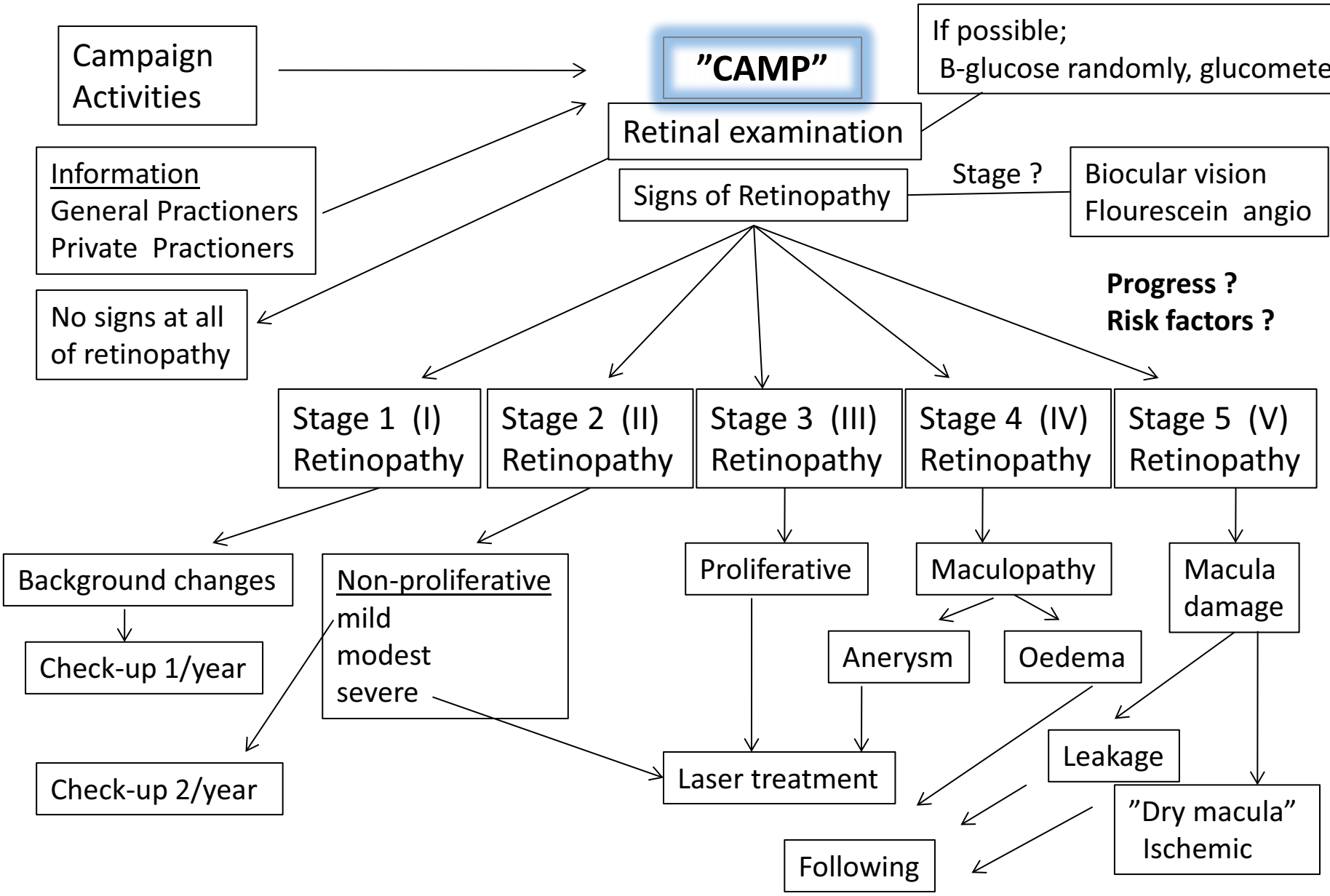
Finding Diabetes Mellitus by Retinal Examination



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Prevalence of Diabetes Mellitus in a Rural Setup

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KNOWLEDGE

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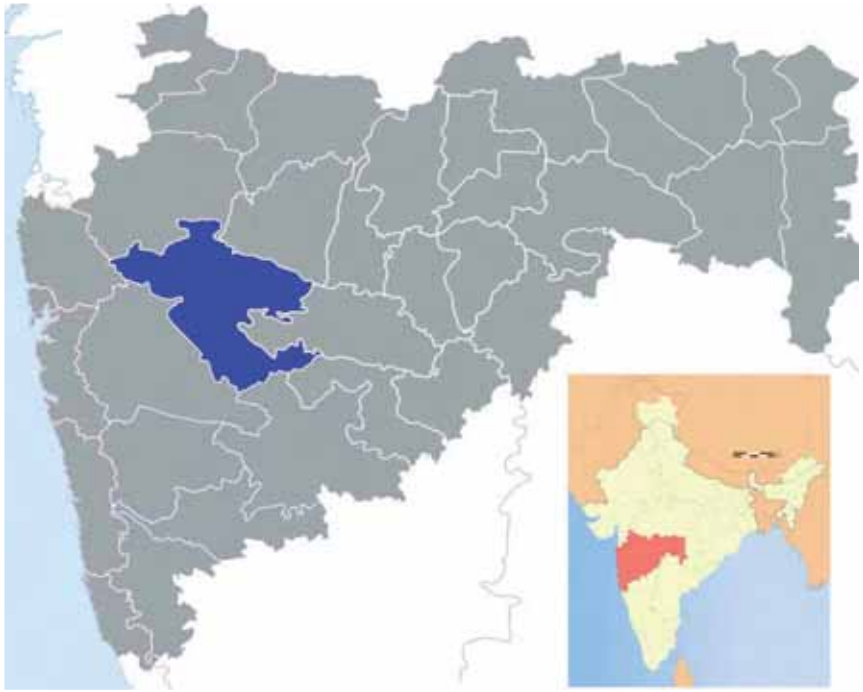
District Ahmednagar

LONI



307 615 habitants 2001

Pravara Institute of Medical Sciences
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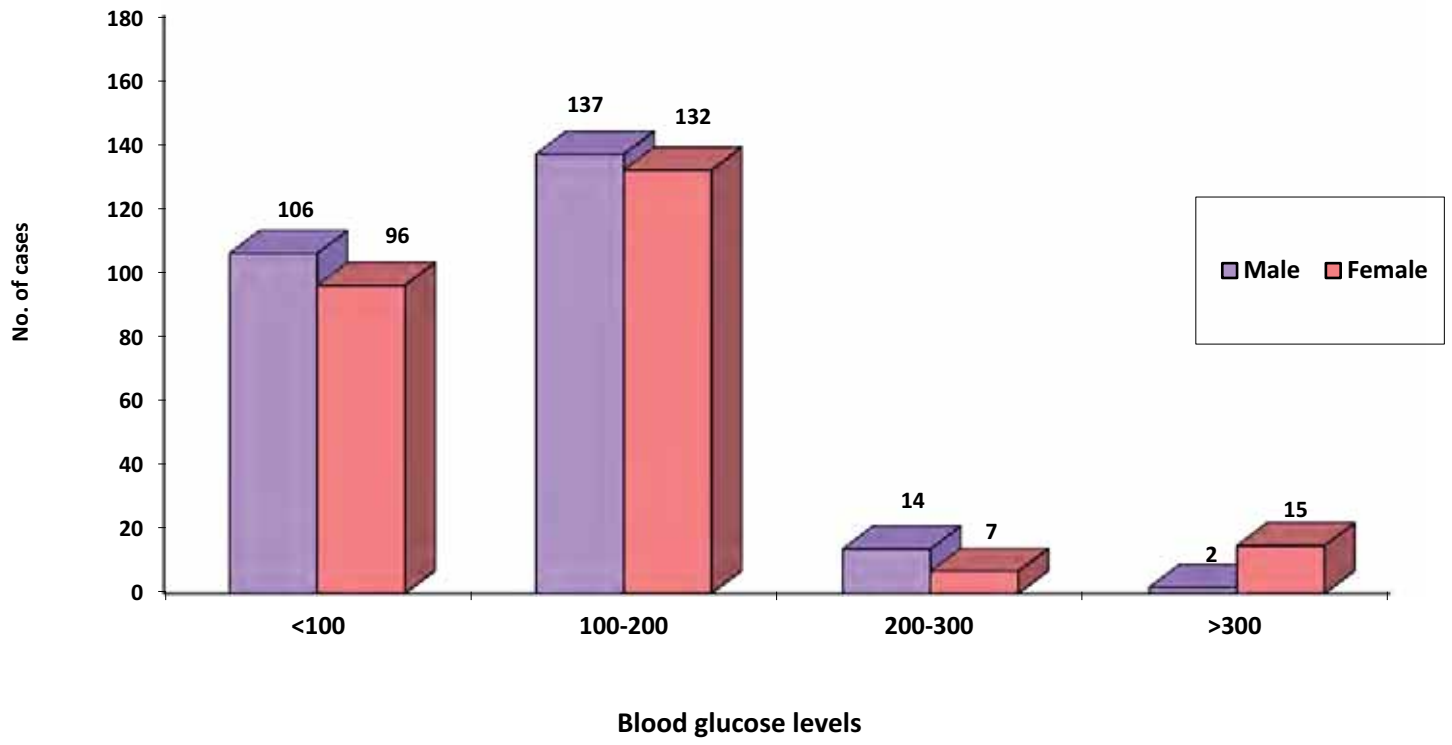


10 th December in Stockholm, Sweden

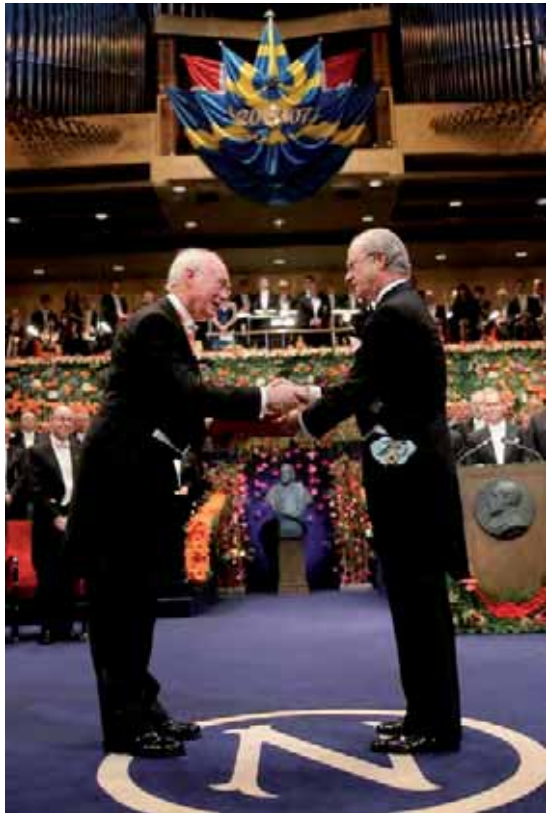
Karolinska Institutet

The largest center for medical education and research in Sweden

The home of the Nobel Prize

According to the will of Alfred Nobel, the Nobel Assembly at Karolinska Institutet each year awards,

The Nobel Prize in Physiology or Medicine



THANK YOU FOR LISTENING

Dr Carina Ursing MD PhD Diabetologist, Karolinska Institutet, Sweden

Karolinska Institutet


PRAVARA HOSPITAL


प्रवरा हॉस्पिटल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फिरता दवाखाना


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STOP
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Gift For You


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वयानुसार योग्य खेळणी


बेटी बचाओ
save the girl child