CO-MORBIDITY WITH DDM

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Pointes of discussion

- Introduction
- Associated autoimmune conditions

1. Genetic associations
2. Celiac disease
3. Autoimmune thyroid disease
4. Addison disease&polyglandular syndrom
5. Vitiligo
6. Collagenopathies(R.A, SLE)

- Screening for associated autoimmune disorders.

points of discussion (Cont.)

- Associated non autoimmune conditions

1) Growth
2) Eating disorders
3) Necrobiosis lipoidica diabeticorum
4) Osteopenia(immune,metabolic causes)
5) Gastropathy
6) Limited joint mobility
7) odema

introduction

- Co-morbid conditions are relatively frequent in type1DM . They can severely affect clinical management of the disease , especially in pediatric age .

Genetic association

- HLA genes
- NON-HLA genes

CD Celiac disease

- Prevalence 1.5-10% of IDDM pt. (population 0.5%).
- Age of onset for IDDM decrease when ass. With CD
- The early age of onset of IDDM ,the higher the risk of CD
- CD preceded IDDM in 10-25%
- Untreated (latent or silent) CD triggering IDDM

Celiac dis.(CONT.)

- Classical presentation
  - GIT (younger)
  - Non-GIT (older)
- IDDM & CD either asymptomatic(silent CD) OR mild symptoms.
- IDDM &CD pt. has benefit from GFD regarding wt. gain & BMD
- Argument of GFD in IDDM pt. with asymptomatic CD

Autoimmune thyroid dis. AIT

- Prevalence 30% of IDDM pt. develop AIT.
- 1ST yr of DM anti thyroid Ab in 11-16.9%
- Antithyroid Ab more in girls
- IDDM pt. hyperthyroidism < hypothyroidism
- C|F of each one.
- Thyroid status not diff. b|t IDDM with or without CD.

Addison dis. AD & autoimmune polyglandular syndrom APS

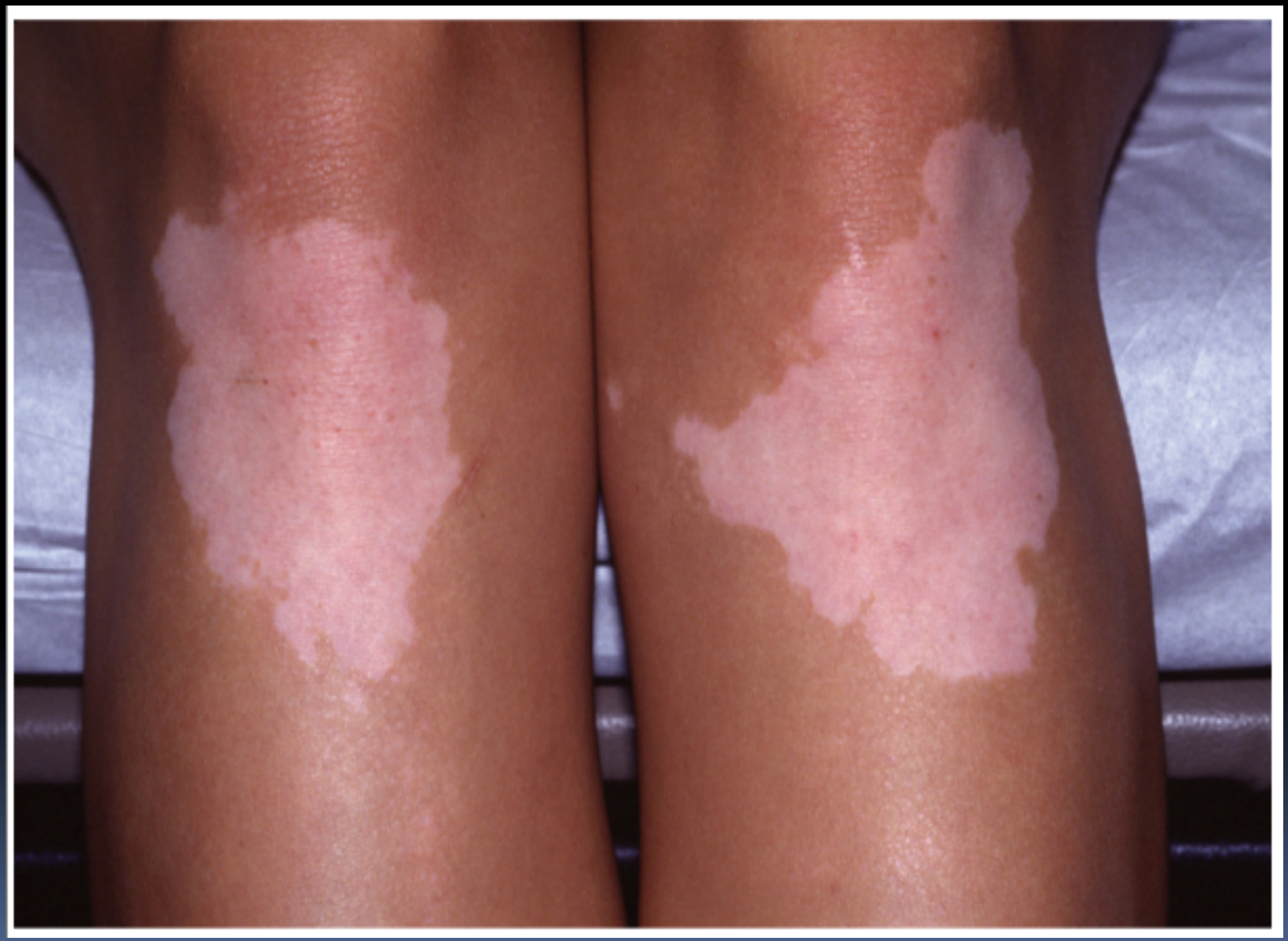
- AD affect 1 in 10,000 in general population

& affect 2% of IDDM pt.

- APS I &II
- 20% of APS I develop IDDM
- AD c/f (frequent hypoglycemia ,pigmentation, hypoNa, hyperK ...)

Vitiligo

- Acquired pigmentry disorder.
- Well documented ass. With autoimmune disorder.
- Prevalence 6% in IDDM pt.
- Rx difficult ,,



Collagenopathies(RA,SLE(

- IDDM with RA has genetic & enviromental factor.
- Majority of cases reported in females.
- RA appear several month.-yrs after Dx of DM
- Ass. b/t DM & SLE ,scleroderma rare.

Screening for ass. Autoimmune disorders

- Screening is possible due to production of organ specific antibodies.
- Frequency of follow-up for +ve Ab contraversial.

Screening

Celiac disease	Transglutaminase antibodies	Yearly
Thyroiditis	TSH, FT4, thyroid antibodies	Yearly
Addison disease	Cortisolemia, adrenal antibodies	Screening if AD in family
Collagenopathies	Specific auto-antibodies	No screening

points of discussion (Cont.)

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Growth

- Affect on growth ranging from poor wt gain to Mauric syndrom.(rare)
- Mech. Of growth affection (IGF & IGFBP)
- Obesity also reported problem.
- Recommendation

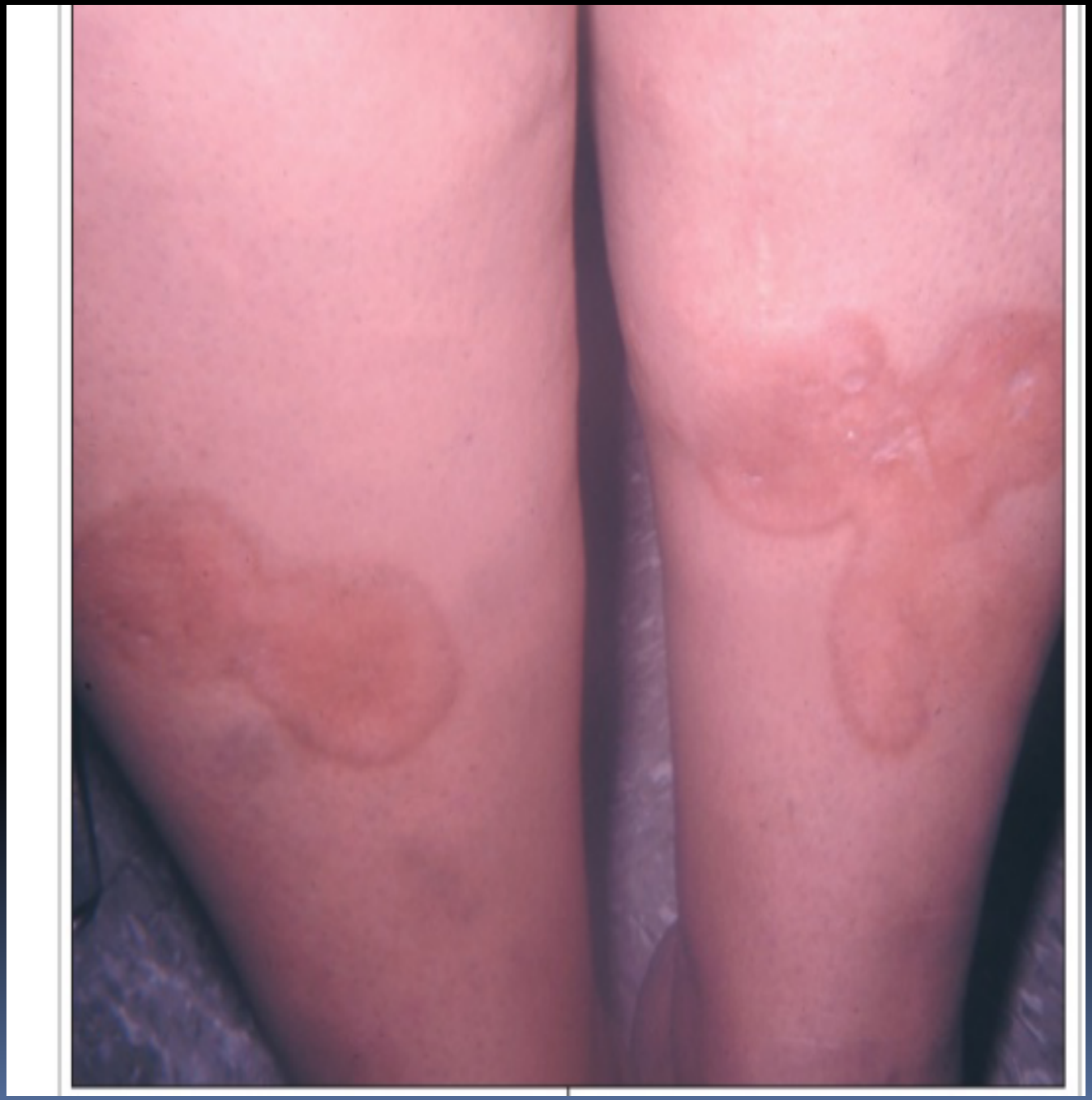
1) Percentile chart is crucial element
2) Intensive insulin regimen since onset of DM.

EDs Eating disorders

- Significant problem as DM considered risk group (competitive athlete ,models, dancers)
- Prevalence higher in DM than non-DM .
- Ass. b/t EDs & DM inc. mortality & morbidity.
- Ass. Also show poor metabolic control & high HbA1C & inc. risk of microvascular complication.
- Multidisciplinary team needed for

Necrobiosis lipoidica diabeticorum NLD

- Prevalence 0.06% - 10%
- Female : male ratio 3:1
- Ass. b/t NLD & DM controversial.
- Wide Varity of Rx methods ranging from steroid (topical , systemic, intralesional) to topical GCSF
- Long term risk of transformation to Seq. cell Ca.
- Primary prevention not yet developed.



Osteopenia

- Metabolic causes
- Immune causes

Gastropathy

- GIT motility disorder with significant morbidity
- Dyspeptic symptoms
- Gastro paresis

Summary of non autoimmune disorders causes& detection

Impaired growth	Poor metabolic control	Monitoring of growth and physical development using growth charts
Eating disorders	Dietary restriction	Ameliorating of nutritional assistance
Necrobiosis lipoidica diabeticorum	Parallel dermopathy	Routine clinical examination of the skin
Osteopenia	Probably even present, but worsened by poor metabolic control/comorbidity	Eventually controlled by Bone ultrasonography/ DEXA
Gastropathy	Poor metabolic control	Investigating of dyspeptic symptoms
Limited joint mobility	Parallel condition	Routine clinical examination of the joint mobility
Oedema	Unknown	Clinical examination

Thank you