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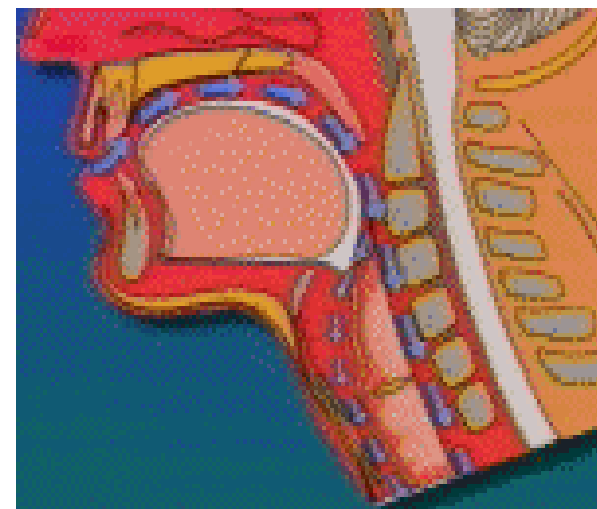
Clinical Assessment of Dysphagia in Transdisciplinary Settings among Stroke patients



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CPLOL-congress / Ljubljana
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I ABOUT DYSPHAGIA 1/5



- ∅ Dysphagia is a very common consequence after stroke
(Ramsey et al 2003; Martino 2000)
- ∅ However mild and moderate aspects of dysphagia are often neglected in the acute phase (Rothstein 1997; Buchholz 1994)
- ∅ Dysphagia is associated with increased morbidity and mortality
(Ramsey et al 2003; Martino 2000)
- ∅ Dysphagia can be a consequence of numerous sicknesses (CVA, tumors, functional origin, etc.)
 - ∅ Type I, Type II and Type III (Langmore et al 1998)
- ∅ Results of prevalence of dysphagia after stroke differs
 - ∅ Meng, Wang & Lien (2000) 25-81 %
 - ∅ Lawrence ym. (2001) 45 %
 - ∅ DePippo ym.(1992) 45 - 67 %
 - ∅ Martino (2000) 13-28 %



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b) Dysphagia often ends in

(Priefer & Robbins 1997)

2/5

- ∅ weak general functional level
- ∅ increased morbidity
- ∅ dehydration, malnutrition
- ∅ increased respiratory infections
- ∅ prolonged need for hospital care
- ∅ permanent hospital care



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c) Clinical symptoms of Dysphagia 3/5



- ∅ Hesitation or inability to swallow (Logemann et al 1998; Logemann 1997)
- ∅ Difficulty to swallow liquids (DePippo et al 1992, 1994)
- ∅ Difficulties with solid foods, need to "wash down" solid foods (Steele et al 1997)
- ∅ Excessive throat clearing (Martino, R et al 2000)
- ∅ Coughing during or after swallowing (Horner et al 1988; Stanners et al 1993)
- ∅ Decreased voluntary coughing (Horner et al 1988, 1993; Stanners et al 1993)



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d) Clinical symptoms of Dysphagia 4/5



- ∅ "Gurgly" sounding/ hoarse voice after eating (Linden ja Siebens 1993)
- ∅ Decreased successive swallowing (Nathadwarawala et al 1994; Nilsson et al 1998)
- ∅ Atypical ventilation periods and recurrent episodes of pneumonia (Harkness et al 1990)
- ∅ Frequent, repetitive swallowings (Steele et al 1997)
- ∅ Discomfort when swallowing and unexpected weight loss etc.

Above and beyond other symptoms,
what about psycho-social well-being ?



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d) Two different approaches 5/5



Benefits of instrumental assessment:

- ∅ provides informations about anatomy and physiology
- ∅ makes possible to compare different swallowing techniques

but

- ∅ valuer reliability often weak
- ∅ possible radiation
- ∅ available only in few places

Benefits of clinical assessment:

- ∅ safe, no radiation
- ∅ easily repeatably
- ∅ results are easily enforced

but

- ∅ sensitivity varies (42% - 90%)
- ∅ spesificity varies (59 % - 91%)



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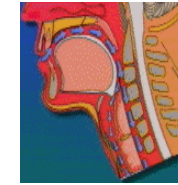
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I TRANSDISCIPLINARY CLINICAL ASSESSMENT OF DYSPHAGIA



a) The aim of this study was to 1/4

- ∅ detect the amount of dysphagia symptoms in subacute phase
- ∅ estimate the level of agreement of swallowing dysfunction between patients, nurses and SLT
- ∅ to find out impact of dysphagia symptoms on feeding modality
- ∅ find out impact of dysphagia symptoms on psycho-social well-being
- ü build up a simple clinical tool to assess dysfunction in swallowing

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b) Inclusion criteria 2/4

- ∅ first CVA
- ∅ CT / MRI – finding
- ∅ co-operation (FIM 4/4)
- ∅ rehabilitation period > 2 weeks
at a transdisciplinary rehabilitation
ward in the UH of Tampere



54 participants (6 nurses , 1 SLT)
accumulation time of the data: 1 year



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<u>ASSESSMENT</u> 4/4	Time post check in	Who ?	The aim was to find out
Bedside screening (Kukkonen et al 2008)	1-2 days	Nurse	General functional level: diet, need for supervision etc. (ICF: Disability)
Sensomotoric assessment (Kukkonen et al 2008)	1-2 days	SLT	Sensomotoric status (SMS) (ICF: Body function)
Clinical Assessment of aspiration (100 ml) (CAA)	1-2 days	SLT	Sensomotoric speed and flexibility, assessment of increased risk for aspiration, need for VFS (ICF: Disability)
Patient Interviewed (Kukkonen et al 2008)	1-2 days	Patient + SLT	Social and psychological possibilities and limitations (ICF Participation / limitations) (ICF: Handicap / Well being)
NWDCS (Logemann et al 1999)	1-2 days	SLT	SMS, CAA and need for VFS (ICF: Disability)
Pulseoximetry Oxygen saturation	1-2 days	SLT	Assessment of respiration and the risk of aspiration (ICF: Disability)
Preliminary knowledge	1 day	SLT	Preliminary knowledge about previous assessments of swallowing and their results
FIM	2 days	Nurse	Primary-ADL, communication, other cognitive skills (ICF: Disability)

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c) The transdisciplinary clinical assessment 3/4



Patient is checked into the rehabilitation ward



Within first two days:

(FIM-assessment)

(Preliminary knowledge of the patient)

Bedside screening of the patient's eating ability (nurses)

Interview (patient's own insight)

Sensomotoric status (SLT)

Northwestern Dysphagia Patient Check Sheet (SLT)



(Appicability to the CAA)



YES

NO



VFG



(CAA + Oxygen saturation while eating)



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II RESULTS 1/3



Combined clinical observations blinded from each other made by SLT, nurses and stroke patients

- ∅ increased need for coughing during and after eating (p=.002)
- ∅ dribbling of boluses (p<.001)
- ∅ time needed increased (p=.033)
- ∅ remains of boluses in the oral cavity (p<0.001)
- ∅ increased need for alterations of food consistency

some other observations by SLT

- ∅ sequential swallowing (100 ml cold water) took more than 10 swallowings
- ∅ desaturation > 3 % basic oxygen saturation



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II RESULTS 2/3

Conclusions made from similar findings mentioned above

SLT 25/54 had dysphagia

Nurses 4/ 54 had dysphagia

Patients 13/54 had dysphagia



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Nurses

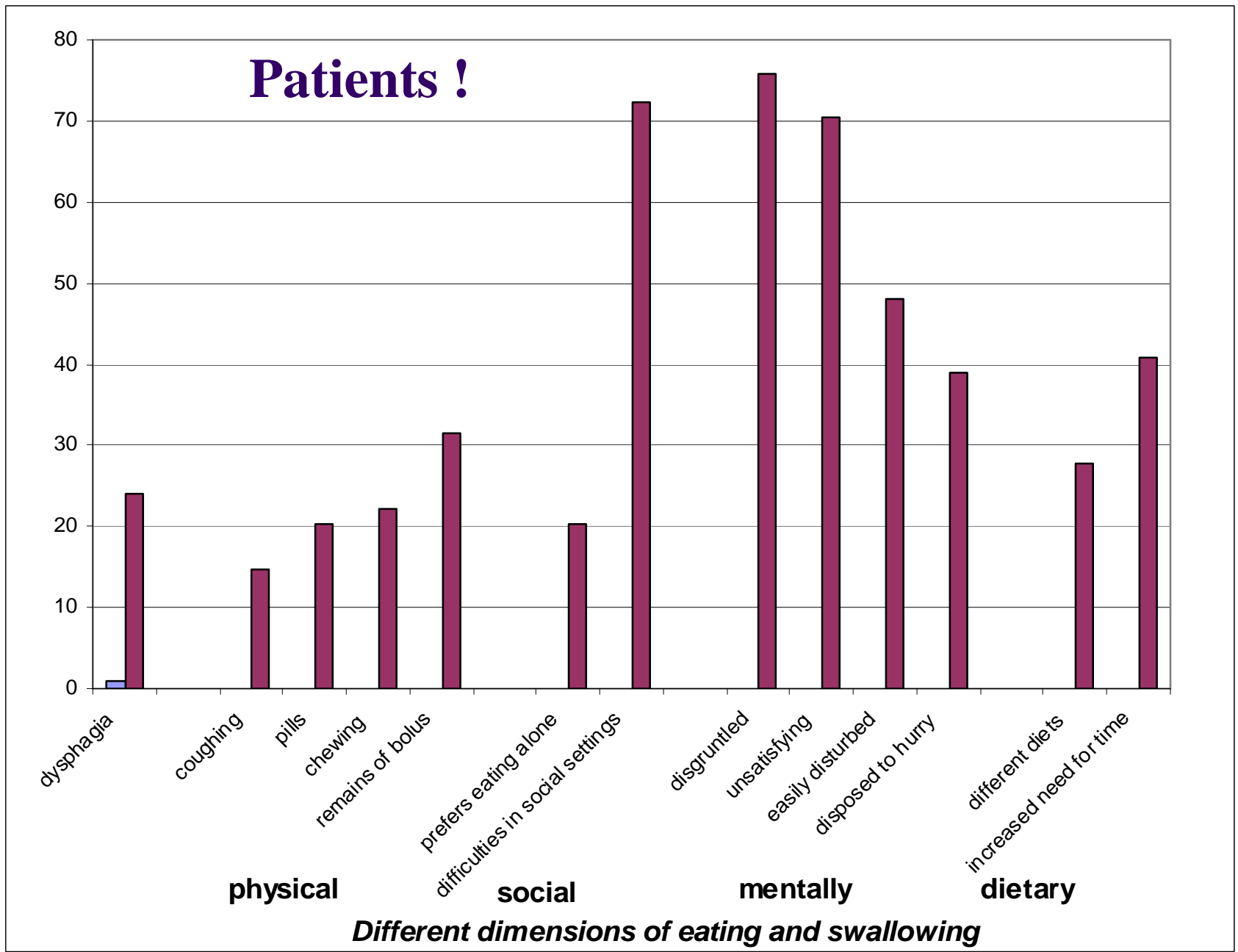
3/4



- ü Clinical features mentioned might be ascribed to stroke itself rather than recognized as a distinct dysfunction
- ü person might be seen more as a "patient" than a common person (common features belong to a **patient** !)



Patients !



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Patients

4/4



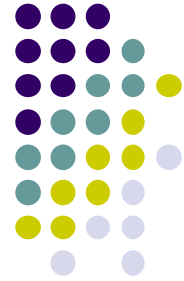
- ü person sees him or herself more as a a ”patient” who usually have different kinds of disabilities, than as a independent skillfull person with no deficits
- ü Clinical features mentioned might be ascribed to stroke itself rather than recognized as a distinct dysfunction



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SLT

5/4



- ü recognized several distinct features ascribing to dysfunction of swallowing
- ü not ascribing to stroke itself but independent consequences of stroke
- ü implement of knowledge about anatomy and physiology of swallowing ?



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III CONCLUSIONS 1/4



- ü Dysfunction of swallowing is much more than usually mentioned increased risk of aspiration
- ü Transdisciplinary clinical assessment of swallowing can be enough
- ü Transdisciplinary assessment of swallowing should be a process rather than an assessment done once
- ü Important that representatives of different professional groups collaborating in an expert organization should be able to arrive at similar conclusions



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III CONCLUSIONS 2/4



- ∅ need for broadening the collective knowledge of anatomy and physiology of swallowing in health care organizations
- ∅ That broadening has to be done by SLT, because they have up the most knowledge about anatomy and physiology swallowing
- ∅ by that strengthen transdisciplinary teamwork
- ∅ recommendation: bedside clinical swallowing assessment



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Recommendation: Bedside clinical swallowing assessment for dysphagia 3/4



PHASE 1. During first 1-3 days at the ward

Nurses: Pay attention to

- ∅ coughing during and after eating
- ∅ dribbling of boluses
- ∅ time needed increased
- ∅ Remains of boluses in the oral cavity
- ∅ desaturation $> 3\%$ basic oxygen saturation (acute care)

PHASE 2. If and when necessary

- ∅ neurologopedic assessment of swallowing
- ∅ interview of patient

CONSTRUCTIVE ALIGNMENT OF ASSESSING OF DYSPHAGIA



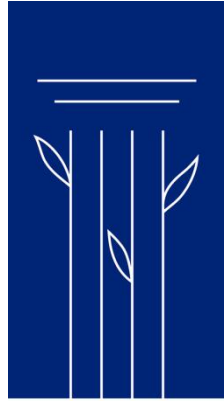
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In the future

4/4



- ∅ to conduct more studies using this protocol
- ∅ correlations between clinical observations and VFS / FEES
- ∅ find out PPV of clinical observations and occurrence of increased risk for aspiration



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Idea of transdisciplinary assessment:

Invitation to an Encounter

A meeting of two; eye to eye, face to face

And when you are near I will tear your eyes out

and place them instead of mine

and you will tear my eyes out

and will place them instead of yours

then I will look at you with yours eyes...

and you will look at me with mine (J.L.Moreno)

**NOT A HOLE
BUT AS WHOLE !**

