6 dementia cases

Please discuss the following points!

1. What is the diagnosis?

2. Which evidence do you find for this diagnosis?

3. Which neuropsychological features are typical for this diasgnosis?

4. Possible alternative diagnoses?

5 Possible counter-evidence for the alternative diagnoses?

Case A (AMF)

Case A: summary of the patient's records

Social conditions: aged 67, married, 3 children, 10 years of formal education, former office employe.

Refered to hospital: sudden onset with left-sided weakness, in regress after 2 days

Previous diseases: TIA 7 years earlier, heart infarction 5 years earlier, TIA 2 years earlier, treated hypertonia since many years

Present symptoms: desoriented in time and space, difficulties with daily living (e.g. cooking), depressed, restless, frequent episodes with clouded consciousness

ECG: abnormal compatible with heart infarct

MRT: 3 old brain infarcts (left inferior infarct in O; several small infarcts bilaterally in basal ganglia including posterior hippocampus; right superior P infarct), periventricular white matter changes

EEG: slowing of alfa rythm, compatible with dementia

Hachinski ischemic score: 12

Diagnosis: ?

Follow-up (3.5 years later): treatment with Nimodipine, subjectively improved, sheltered living, MMSE: 26

Case A: neuropsychological test results:

Function	Test	Raw score	Norm	Profile (Z)				
				-2	-1	0	+1	+2
Cognition	FSIQ	91ik	4	.	. *	.	.	
-"-	MMSE	22p	nwr	. *	.	.	.	
Verbal	Similarities	17p	5	.	.	*	.	.
-"-	Naming	4c/10	nwr	. *	.	.	.	
-"-	FAS	18p	1	*	.	.	.	.
Spatial	Block Design	20p	5	.	.	*	.	.
	Rey CF Copy	33p	3	.	*	.	.	.
-	Clock read/set	4c/2c	nwr	*	.	.	.	.
Memory	Digit Span F	6.0	5	.	.	*	.	.
-"-	Corsi Span	na	-		.	.	.	.
-"-	Rey AVLT	19p	1	*	.	.	.	.
-"-	Rey CF Retention	2p	1	*	.	.	.	.
Attention	Digit Symbol	27rp	4	.	. *	.	.	
-"-	TMTA	24c/131"	1	*	.	.	.	.
-"-	TMTB	13r/824"	1	*	.	.		
Motor	FT: right hand	41	1	*	.	.	.	.
-"-	FT: left hand	24	1	*	.	.	.	.

nwr = not without remarks
?=borderline
wr=without remarks
na=not assessed

Report summary

Regarding personality: adequate relation and reactions when examined. Premorbid cognition is without remarks. Current general cognition is low average. Varying results in verbal functions: intact abstraction but impaired naming and word fluency; no dysarthria. Visuospatial functiong yaries from almost normal (Block Design) to clearly disturbed (Clock setting). Episodic memory is markedly impaired (confabulation occurs). Control of attention and psychomotor performance shows clear deficits (remarkable slowness in easy tasks). Remarkable side assymmetry in finger motor performance (relatively more impaired left hand; right-handed). No progress according to a follow-up 1 year later.

Case B (RF)

Case B: summary of the patient's records

Social conditions: aged 53, married, no children, 9 years of formal education, bus driver, on sick-leave.

Refered to hospital: 3 years ago the wife noticed lack of initiative, several traffic incidents during the last year in contrast to previously careful driving, inappropriate personal care, decreased spontaneous speech

Heredity for dementia: yes

Previous diseases: nothing known, no drug abuse

Present symptoms: no worries about the future, looks forward to early retirement

ECG: normal

MRT: moderate atrophy of right F and anterior T. Dilatation of right frontal and temproal ventricular horns. Left hemisphere is almost intact.

SPECT: lower perfusion in left versus right hemisphere, clearly lower perfusion in the anterior than posterior regions

EEG: normal

Neurological status: normal

Laboratory tests: normal

Diagnosis: ?

Case B: neuropsychological test results

Function	Test	Raw score	Norm	Profile (Z)				
				-2	-1	0	+1	+2
Cognition	FSIQ	89ik	4	.	. *	.	.	.
-"-	MMSE	28p	wr	.	.	*	.	.
Verbal	Similarities	18p	5	.	.	*	.	.
-"-	Naming	56c/60	5	.	.	*	.	.
-"-	FAS	19p	2	. *	.	.	.	.
Spatial	Block Design	20p	5	.	.	*	.	.
-"-	Rey CF Copy	20p	1	*	.	.	.	.
-"-	Clock read/set	5c/2c	nwr	*	.	.	.	.
Memory	Digit Span F	6.2	5	.	.	*	.	.
-"-	Corsi Span	4.3	2	. *	.	.	.	.
-"-	Rey AVLT	22p	1	*	.	.	.	.
-"-	Rey CF Retention	4.5p	1	*	.	.	.	.
Attention	Digit Symbol	30p	2	. *	.	.	.	.
-"-	TMTA	24c/49"	4	.	. *	.	.	.
-"-	TMTB	20r/133"	4	.	. *	.	.	.
Motor	FT: right hand	55	4	.	. *	.		.
-"-	FT: left hand	63	6	.	.	. *	.	.

nwr = not without remarks
?=borderline
wr=without remarks

Report summary

Regarding personality: inadequate relation (indifferent) and reactions (episodes with cheating, laughing) when examined. Premorbid cognition is without remarks. Current general cognition is low average. Varying results in verbal functions: intact abstraction (good spontaneous comprehsion) and naming, whilst word fluency is markedly impaired; no dysarthria. Visuospatial functions varies from almost normal (Block Design) to clearly disturbed (Rey CF Copying). Copying performance shows disturbed planning and organization of behavior. Assymmetry in primary memory (Corsi lower than Digit Span). Markedly impaired episodic memory (frequent intrusion errors). Almost normal attention and psychomotor performance. Normal finger motor performance, no assymmetry, right-handed. Normal tactile finger performance. Remarkable behavior during testing: frequent instances of utilization behavior, many false alarms in multiple choice question, unreasonable estimations when the answer is not known, and rule-breaking behavior. Handwriting is careless and untidy.

Case C (LC)

Case C: summary of the patient's records

Social conditions: aged 64, married, 2 children, 11 years of formal education, teacher for disabled children, interested in sports (active tennis-player), retired at 63.

Refered to hospital: 3 years ago the husband noticed memory problems

Heredity for dementia: no

Previous diseases: tinnitus, hypertonia, periods of seasonal depressive symptoms (no treatment or no hospital visits), no drug abuse

Present symptoms: denies any symptoms or problems, although memory difficulties have been reported from her husband (insidious onset 2 years earlier) and friends.

ECG: normal

CT: normal.

SPECT: normal perfusion.

PET: a little lower glucose metabolism in inferior TP region bilaterally, left hemisphere TP metabolism lower than right.

Neurological status: normal

Laboratory tests: normal

Diagnosis: ?

Case C: neuropsychological test results

Funktion	Test	Råvärde	Norm	Profil (Z)				
				-2	-1	0	+1	+2
Cognition	FSIQ	106ik	6	.	.	. *	.	.
-"-	MMSE	26p	?	.	.	*	.	.
Verbal	Similarities	23p	7	.	.	.	*	.
-"-	Naming	59c/60	7	.	.	.	*	.
-"-	FAS	50p	5	.	.	*	.	.
Spatial	Block Design	35p	7	.	.	.	*	.
-"-	Rey CF Copy	36p	6	.	.	. *	.	.
-"-	Clock read/set	5c/5c	wr	.	.	*	.	.
Memory	Digit Span F	5.5	4	.	. *	.	.	.
-"-	Corsi Span	5.5	6	.	.	. *	.	.
-"-	Rey AVLT	24p	1	*	.	.	.	.
-"-	Rey CF Retention	10p	1	*	.	.	.	.
Attention	Digit Symbol	45p	5	.	.	*	.	.
-"-	TMTA	24c/42"	5	.	.	*	.	.
-"-	TMTB	20r/62"	7	.	.	.	*	.
Motor	FT: right hand	69	7	.	.	.	*	.
-"-	FT: left hand	68	8	.	.	.	. *	.

nwr = not without remarks
?=borderline
wr=without remarks

Report summary

Regarding personality: adequate relation and (a little tense) when examined. Premorbid cognition is without remarks. Current general cognition is high average. Good results in verbal functions: high average in abstraction and naming, whilst word fluency is normal. Visuospatial functions in the high average level. Primary memory within normal limits (Corsi lower than Digit Span). Markedly impaired episodic memory (frequent intrusion errors). High average in tests of attention and psychomotor performance. Superior finger motor performance, no assymmetry, right-handed. No progression at follow-up after 6 months.

Case D (FS)

Case D: summary of the patient's records

Social conditions: aged 54, married, one daughter, 17 years of formal education, master of engineering, currently on sick-leave.

Refered to hospital: 1 year ago the pat noticed a relatively sudden onset with memory difficulties and episodes of spatial disorientation, diminished effect of depressive treatment.

Heredity for dementia: no.

Previous diseases: treatment for depressive episodes during the last 20 years (currently with Prozac), no drug abuse.

Present symptoms: worried about the future, subjective problems at his work place that didn´t exist previously.

ECG: normal.

MRT: no atrophy, intact hippocampus region, minor white matter hyperintensities.

SPECT: normal perfusion.

EEG: borderline to normal (background activity).

Neurological status: normal.

Psychatric status (CPRS-D): 17.5 (no suicidal thoughts, no psychotic signs).

Laboratory tests: normal

Diagnosis: ?

Case D: neuropsychological test results

Funktion	Test	Råvärde	Norm	Profil (Z)				
				-2	-1	0	+1	+2
Cognition	FSIQ	101ik	5	.	.	*	.	.
-"-	MMSE	28p	wr	.	.	*	.	.
Verbal	Similarities	21p	6	.	.	. *	.	.
-"-	Naming	60c/60	8	.	.	.	. *	.
-"-	FAS	21p	2	. *	.	.	.	.
Spatial	Block Design	30p	6	.	.	. *	.	.
-"-	Rey CF Copy	36p	6	.	.	. *	.	.
-"-	Clock read/set	5c/5c	wr	.	.	*	.	.
Memory	Digit Span F	4.7	2	. *	.	.	.	.
-"-	Corsi Span	4.0	2	. *	.	.	.	.
-"-	Rey AVLT	31p	1	*	.	.	.	.
-"-	Rey CF Retention	12p	1	*	.	.	.	.
Attention	Digit Symbol	21p	2	. *	.	.	.	.
-"-	TMTA	24c/55"	3	.	*	.	.	.
-"-	TMTB	24r/118"	4	.	. *	.	.	.
Motor	FT: right hand	51	3	.	*	.	.	.
-"-	FT: left hand	44	3	.	*	.	.	.

nwr = not without remarks
?=borderline
wr=without remarks

Report summary

Regarding personality: adequate relation and works very slowly, but with addition of extra time, the solutions are very good) when examined. Premorbid cognition is above average. Current general cognition is average. Varying results in verbal functions: intact abstraction and naming, whilst word fluency is markedly impaired. Visuospatial functions are without remarks (well organized copying). Impaired performance on primary memory tasks (Corsi lower than Digit Span). Markedly impaired verbal (intrusion errors: 1) and spatial episodic memory (scantiness, but no errors). Borderline performance in tasks of attention and psychomotor speed. Borderline finger motor performance, no assymmetry, right-handed. No clear progression during 1.5 years.

Case E (KP)

Case D: summary of the patient's records

Social conditions: aged 54, married, 2 children, 9 years of formal education, skilled worker, hobby artist and carpenter, unemployed due to reorganization of the company (at first examination).
Refered to hospital: breast pain.
Heredity for dementia: yes.
Previous diseases: nothing known, no drug abuse.
Present symptoms: no subjective symptoms, denies disorientation and memory problems (have always been easily distracted).
ECG: normal.
MRT: some small white matter bilateral hyperintensities, normal ventricles, sulci, and gyri. Normal hippocampus at visual inspection.
SPECT: a little lower perfusion in left versus right hemisphere, otherwise normal perfusion pattern.
EEG: pathological: episodes of focal abnormality of the left FT-region, no background slowing.
Neurological status: normal
Laboratory tests: normal
Diagnosis: ?
Follow-up 3 years later showing marked progression (MMSE: 14).

Case E: neuropsychological test results

Funktion	Test	Råvärde	Norm	Profil (Z)				
				-2	-1	0	+1	+2
Cognition	FSIQ	79ik	2	*	.	.	.	.
-"-	MMSE	26p	wr	.	.	*	.	.
Verbal	Similarities	9p	2	*	.	.	.	.
-"-	Naming	58c/60	7	.	.	*	.	.
-"-	FAS	30p	3	.	*	.	.	.
Spatial	Block Design	12p	1	*	.	.	.	.
-"-	Rey CF Copy	32p	2	*	.	.	.	.
-"-	Clock read/set	5c/3c	nwr	.	*	.	.	.
Memory	Digit Span F	5.0	3	.	*	.	.	.
-"-	Corsi Span	4.4	3	.	*	.	.	.
-"-	Rey AVLT	21p	1	*	.	.	.	.
-"-	Rey CF Retention	1p	1	*	.	.	.	.
Attention	Digit Symbol	15p	1	*	.	.	.	.
-"-	TMTA	24c/36"	8	.	.	.	*	.
-"-	TMTB	13r/162"	1	*	.	.	.	.
Motor	FT: right hand	76	9	.	.	.	.	*
-"-	FT: left hand	55	5	.	.	*	.	.

nwr = not without remarks
?=borderline
wr=without remarks

Report summary

Regarding personality: adequate relation (very personal) and specific reactions (cooperative, helpful "for the sake of science") when examined. Premorbid cognition is without remarks. Current general cognition is below average. Good results in naming, but below average in verbal abstractiuon; borderline word fluency. Visuospatial functions are clearly below average (notice copying; the patient is a hobby artist). Primary memory at the lower normal limit (Corsi lower than Digit Span). Markedly impaired episodic memory (frequent intrusion errors). Clearly below average in 2 tests of psychomotor performance. Superior finger motor performance, no assymmetry, right-handed.

Case F (GD)

Case F: summary of the patient's records

Social conditions: aged 70, divorced, 6 children, 16 years of formal education (university degree in mathematics and physics), retired headmaster.

Refered to hospital: insidious onset with psychotic symptoms and visuospatial disorientation.

Previous head trauma 12 years earlier.

Present symptoms: lively temporary hallucinations, desoriented in space, memory symptoms, moderate rigidity.

Ward observations: fluctuations of cognition.

ECG: normal.

MRT: several periventricular white matter changes, normal ventricles, convexity sulci somewhat wider than normal, no focal changes), slight progression during 1 year.

EEG: pathologic (diffuse abnormality), slight progression during 1 year.

SPECT: normal.

PET: marked reduction of bilateral OP regions and slightly reduced glucose metabolism in the right inferior T lobe.

Treatment: antipsychotics increased the Parkinson symptoms.

Diagnosis: ?

Case F: neuropsychological test results

Function	Test	Raw score	Norm	Profile (Z)				
				-2	-1	0	+1	+2
Cognition	FSIQ	99ik	5	.	.	*	.	.
-"-	MMSE	24p	nwr	. *	.	.	.	.
Verbal	Similarities	16p	6	.	.	. *	.	.
-"-	Naming	45c/60	nwr	. *	.	.	.	.
-"-	FAS	40p	4	.	. *	.	.	.
Spatial	Block Design	2p	2	. *	.	.	.	.
-"-	Rey CF Copy	12.5p	1	*	.	.	.	.
-"-	Clock read/set	1c/0c	nwr	*	.	.	.	.
Memory	Digit Span Forward	6.6	6	.	.	. *	.	.
-"-	Corsi Span	na	-	.	.	.	.	.
-"-	Rey AVLT	28p	1	*	.	.	.	.
-"-	Rey CF Retention	8p	1	*	.	.	.	.
Attention	Digit Symbol	8rp	1	*	.	.	.	.
-"-	TMTA	24c/127"	1	*	.	.	.	.
-"-	TMTB	10r/-"	1	*	.	.	.	.
Motor	FT: right hand	na	-	.	.	.	.	.
-"-	FT: left hand	na	-	.	.	.	.	.

nwr = not without remarks
?=borderline
wr=without remarks
na=not assessed

Report summary

Temporary dissociative perceptions of self, other persons and objects. Premorbid cognition is without remarks (retired headmaster by profession, degree from university). Current general cognition is average. Varying results in verbal functions: intact abstraction (?) but impaired naming and word fluency; slight dysarthria. Visuospatial functioning is very disturbed. Episodic memory is markedly impaired. Control of attention and psychomotor performance shows clear deficits (remarkable slowness and fluctation in easy tasks). No side assymmetry in motor functions, but a slight restriction of mobility in both upper and lower limbs (unsteady gait), no tremor, slightly changed posture. Marked progress in cognition according to a follow-up examination.