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Pathological Stealing and Antisocial Behavior Associated with Fronto-Temporal Dementia

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The behavioral variant of fronto-temporal dementia (bv-FTD) is the second most frequent form of pre-senile dementia, following Alzheimer's disease among people below the age of 65 years and affects the frontal lobes, temporal lobes, or both.

Estimated prevalence: 15-22:100,000 in the age group between 45 and 65 years
Male = female ; Symptoms onset is usually before the age of 65 years: mean age = approximately 58 years
The underling pathology invariably leads to focal atrophy of frontal and temporal lobes and is referred to as frontotemporal lobar degeneration (FTLD)

Main Behavioral Symptoms

Progressive change in personality
Emotional and cognitive dysfunction: lack of empathy, tactless
Transgression of social norms: compulsive and uninhibited behavior (impulsive actions, socially embarrassing)
Apathy: inertia, reduced motivation, lack of interest in previous hobbies, social isolation
Pathological stealing (inability to resist stealing unneeded objects of insignificant value)

Diagnosis

Tab. 1 - International consensus criteria for behavioral variant FTD published in 2011, free online (http://www.theaftd.org/wp-content/uploads/2009/02/Table-3-International-consensus-criteria-for-behavioural-variant-FTD.pdf)

Pharmacological treatment

Serotonergic antidepressants: reducing behavioral disturbances, in particular dishinibition, apathy, repetive behaviors, sexually inappropriate behavior, hyperorality

Antipsychotics: commonly prescribed to treat disinhibition, agitation, and psychosis

Non-pharmacological interventions: identified by a multidisciplinary team for supporting patients' engagement in activities to ensure them an optimal quality of life

I. Neurodegenerative disease
The following symptom must be present to meet criteria for bvFTD
- A. Shows progressive deterioration of behaviour and/or cognition by observation or history (as provided by a knowledgeable informant).

II. Possible bvFTD
Three of the following behavioural/cognitive symptoms (A–F) must be present to meet criteria. Ascertainment requires that symptoms be persistent or recurrent, rather than single or rare events.
- A. Early* behavioural disinhibition [one of the following symptoms (A.1–A.3) must be present]:
  - A.1. Socially inappropriate behaviour
  - A.2. Loss of manners or decorum
  - A.3. Impulsive, rash or careless actions
- B. Early apathy or inertia [one of the following symptoms (B.1–B.2) must be present]:
  - B.1. Apathy
  - B.2. Inertia
- C. Early loss of sympathy or empathy [one of the following symptoms (C.1–C.2) must be present]:
  - C.1. Diminished response to other people's needs and feelings
  - C.2. Diminished social interest, interrelatedness or personal warmth
- D. Early perseverative, stereotyped or compulsive/ritualistic behaviour [one of the following symptoms (D.1–D.3) must be present]:
  - D.1. Simple repetitive movements
  - D.2. Complex, compulsive or ritualistic behaviours
  - D.3. Stereotypy of speech
- E. Hyperorality and dietary changes [one of the following symptoms (E.1–E.3) must be present]:
  - E.1. Altered food preferences
  - E.2. Binge eating, increased consumption of alcohol or cigarettes
  - E.3. Oral exploration or consumption of inedible objects
- F. Neuropsychological profile: executive/generation deficits with relative sparing of memory and visuospatial functions [all of the following symptoms (F.1–F.3) must be present]:
  - F.1. Deficits in executive tasks
  - F.2. Relative sparing of episodic memory
  - F.3. Relative sparing of visuospatial skills

III. Probable bvFTD
All of the following symptoms (A–C) must be present to meet criteria.
- A. Meets criteria for possible bvFTD
- B. Exhibits significant functional decline (by caregiver report or as evidenced by Clinical Dementia Rating Scale or Functional Activities Questionnaire scores)
- C. Imaging results consistent with bvFTD [one of the following (C.1–C.2) must be present]:
  - C.1. Frontal and/or anterior temporal atrophy on MRI or CT
  - C.2. Frontal and/or anterior temporal hypoperfusion or hypometabolism on PET or SPECT

IV. Behavioural variant FTD with definite FTLD Pathology
Criterion A and either criterion B or C must be present to meet criteria.
- A. Meets criteria for possible or probable bvFTD
- B. Histopathological evidence of FTLD on biopsy or at post-mortem
- C. Presence of a known pathogenic mutation

V. Exclusionary criteria for bvFTD
Criteria A and B must be answered negatively for any bvFTD diagnosis. Criterion C can be positive for possible bvFTD but must be negative for probable bvFTD.
- A. Pattern of deficits is better accounted for by other non-degenerative nervous system or medical disorders
- B. Behavioural disturbance is better accounted for by a psychiatric diagnosis
- C. Biomarkers strongly indicative of Alzheimer's disease or other neurodegenerative process

Case Report

Italian 50-years-old man. Regular life until 2010: married, had a daughter, had a job and was described polite and well integrated

In 2010 some critical events occoured:
he lost his job
his father in law died (he was particularly attached)
his wife had a serious illness

He began to show:
- mood changes: alternation of depression and hypomania
- emotional detachment from his family, blunting of affect
- significant weight loss
- apathy, inertia, reduced motivation, poor self-care
- lack of interest in his prior activities and social isolation
- lack of empathy, tactless
- compulsive hoarding (of components of computer)
- disinhibition, impulsive behavior (eg.reckless driving)
- memory deficits
- executive dysfunction
- alternation of fits of anger and excessive euphoria

He began stealing objects (components of computer), **without concern for witnesses and without premeditation or concern for resulting legal action.**

WAIS-R test: middle-lower IQ level

PET exam: bilateral superior anterior and middle frontal hypometabolism, including inferior frontal gyrus and opercula

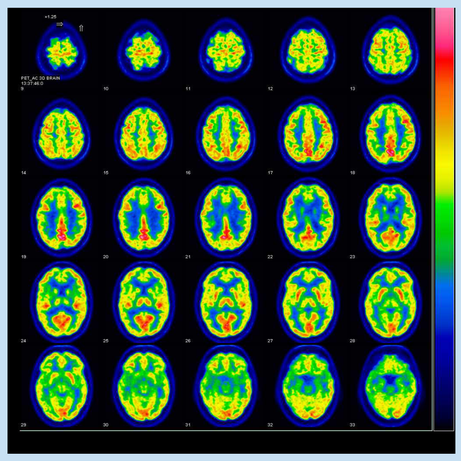

Fig.1
PET Scan
Bilateral superior anterior and middle frontal hypometabolism including inferior frontal gyrus and opercola.

Diagnosis:
neurodegenerative progressive disease, defined as frontotemporal dementia (FTD) with executive dysfunction, behavior's anomalies and kleptomania

Charged by the Police with attempted robbery. The Court asked for a psychiatric evaluation, analyzing the effect on behavior from his neurodegenerative disease.

Mental examination

- **Deficits in attention and concentration**
- **Simple speech, poor in terms**
- **Affect not always appropriate** (not worried about his clinical and juridical situation)
- **Intellectual impairment**
- **Dyscalculia** (difficult in simple operations as addition or subtraction)
- **Poverty of thought**
- **Deficit in short and long-term memory**
- **Reduction of his capacity for critical analysis and judgment** (did not fully realize the severity and the possible consequences of his illness)

Diagnosis: Frontotemporal dementia with executive dysfunction, behavior's anomalies and kleptomania

His wife illness, his job loss and the death of his father in law may have played a role in unmask and make manifest early symptoms of frontotemporal dementia, which usually has a slow and constant evolution.

Therapy: Quetiapine 100 mg/die (a short-acting atypical antipsychotic)
Valproic acid (VPA, valproate) 800 mg/die (a mood-stabilizing drug)

Reduction of impulsive behavior and irritability. He appeared peaceful and cooperative, he improved self-care and consideration of his family.
No more episodes of kleptomania since June 2013

The man was considered not guilty for reason of mental insanity
(Frontotemporal dementia with executive dysfunction, behavior's anomalies and kleptomania)

As far as he continues the pharmacological treatment and psychological support, he is considered not socially dangerous