however uncommonly, may occur as a sign of focal cerebral disease. This matter was known to Arnold Pick, who provided the first report devoted to micrographia in 1903. A patient who had exhibited micrographia but lacked Parkinsonism was found at necropsy to have a syphilitic infarct of the left thalamus opticus (at the genu of the internal capsule) and other small infarcts. Pick did not discuss micrographia as a distinctive feature of Parkinsonism, although he mentioned in passing its similarities to the handwriting changes caused by chronic manganese exposure, an intoxication often associated with other Parkinsonian features as well. Although the cases of Pick and the present report do not permit a more precise localisation for the responsible lesions, both illustrate that other forms of subcortical pathology may produce micrographia as distinctive as that found with Parkinsonism. Especially with unilateral presentation, one can be confident of the diagnosis of Parkinson’s disease only when other cerebral pathology sharing a similar anatomical focus has been excluded. Even with as characteristic a Parkinsonian finding as micrographia, this case illustrates the need for vigilance in the search for other, less common forms of neurological disease.

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References


Do Parkinsonian patients have a greater resistance to the common cold?

Sir: We recently noticed that patients with Parkinson’s disease who frequently suffered from the common cold before the onset of the disease, became resistant to colds after the onset of Parkinsonism. We therefore studied the actual incidence of the common cold in the relation to Parkinson’s disease.

Forty one patients with Parkinson’s disease (22 males, 19 females), who had suffered from the illness for more that 2 years were chosen randomly and studied. Their ages ranged from 47 to 79 years (63.8 ± 8.7, mean ± SD). Fifty seven other patients (29 males, 28 females) not afflicted with Parkinson’s disease who had been under medical treatment for various other disease for more than 2 years, were randomly selected (15 cases of cerebrovascular disease, 13 cases of cervical spondylosis, five cases of motor neuron disease, four cases of chronic hepatitis and 20 cases of miscellaneous diseases). Their ages ranged from 51 to 73 years (62.1 ± 6.4, mean ± SD). The study was performed by the use of the following questionnaire in the out-patient clinic.

Question 1: How many times did you catch a common cold in the past 6 months? Question 2: Was there any change in your susceptibility to common cold before and after the onset of your disease? Question 3: Before the onset of your disease, were you more susceptible to common cold compared with your neighbours? The questionnaires were filled up by the patients themselves. If the patients had dementia or difficulty in writing, it was done by their family. The study was conducted during March 1981.

Question 1: The number of patients affected by common cold during the previous 6 months was 11 out of 41 (27%) in Parkinsonian patients, and 34 out of 57 (60%) in controls. The mean incidence of common cold was 0.3 in the six months for a Parkinsonian patient, and 1.0 for a control patient.

Question 2: Fifty one per cent of Parkinsonian patients noticed that they caught common cold less frequently after being afflicted by the disease. The others, except one, said that there had been no change. On the other hand, there was no change in the incidence of common cold in controls after the onset of their diseases.

Question 3: Sixty one per cent of Parkinsonian patients answered that they seemed to catch common cold less frequently than their neighbours before the onset of their diseases. In controls there was no difference.

These results suggest that Parkinsonian patients catch common cold less frequently compared with their neighbours before the onset of Parkinson’s disease, and they caught common cold even less frequently after the onset of Parkinson’s disease. Why do Parkinsonian patients catch common cold less frequently? Do they have a greater resistance to common cold? Amantadine which is often prescribed to Parkinsonian patients, is known to have an effect on some viruses. But in our study, Parkinsonian patients on amantadine had the same incidence of common cold as the patients without amantadine (table). We suspect that it is their disposition which leads them to become “resistant” to the common cold. Many Parkinsonian patients are believed to be rigid personalities, they usually have no hobbies and may have a narrowing of intellectual horizons. These characteristics may lead them to be less sociable and thus have fewer contacts with other people with the common cold. In addition it is very well known that the incidence of smoking in Parkinsonian patients

<table>
<thead>
<tr>
<th>Table</th>
<th>The incidence of common cold in Parkinsonian patients compared with controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parkinson’s disease</td>
<td>Control</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Male</td>
<td>22 (10)</td>
</tr>
<tr>
<td>Female</td>
<td>19 (7)</td>
</tr>
<tr>
<td>Total</td>
<td>41 (17)</td>
</tr>
<tr>
<td>1. Number of patients who had suffered common cold*</td>
<td>11 (6)</td>
</tr>
<tr>
<td>Total number of colds</td>
<td>12 (7)</td>
</tr>
<tr>
<td>Number of colds per patient</td>
<td>0.3 (0-4)</td>
</tr>
<tr>
<td>2. The change of susceptibility* to common cold after the onset of Parkinsonism</td>
<td></td>
</tr>
<tr>
<td>more susceptibility</td>
<td>1 (1)</td>
</tr>
<tr>
<td>less susceptibility</td>
<td>21 (8)</td>
</tr>
<tr>
<td>same susceptibility</td>
<td>19 (8)</td>
</tr>
<tr>
<td>3. The susceptibility to common cold* before the onset of illness as compared with their neighbours</td>
<td></td>
</tr>
<tr>
<td>more susceptible</td>
<td>4</td>
</tr>
<tr>
<td>less susceptible</td>
<td>25</td>
</tr>
<tr>
<td>same</td>
<td>12</td>
</tr>
</tbody>
</table>

The number of patients prescribed amantadine is showed in parentheses.

*p < 0.01 (χ² test)
is low.3 Smoking diminishes the resistance to upper respiratory infections.4 In Parkinsonian patients the low incidence of smoking may account in part for their "resistance" to the common cold.

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cold viral respiratory illness. The effect of rinovirus infection in cigarette smokers. Am

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Environmental reduplication associated with a right thalamic haemorrhage

Sir: Environmental reduplication or redup-
lication of place is an uncommon disorder (and exceptional as an isolated cognitive
deficit) of spatial orientation. The patient states that there are two or more places with
identical attributes, although only one ex-
ists in reality.1 The location of the lesion or
lesions responsible for this disorder was
certain until Benson et al.2 suggested,
because there were no specific neuropatho-
cal correlations, that it may be the result
of combined right hemisphere and frontal
lobe dysfunction. Recently, Ruff and
Volpe3 reported four patients with clear
cut evidence of right frontal or parietal lobe
injury, confirming Benson's view about the
importance of the non-dominant hemi-
sphere pathology. Therefore, we wish to
record an unusual case of environmental reduplication associated with right thalamic
haemorrhage.

A 74-year-old right handed hypertensive
man was admitted with a sudden onset of
headache, somnolence, left-sided hemi-
paresis, left sensory loss and a left homonimous visual field defect with a

tendency to neglect the visual deficit. His
past history was unremarkable with the
exception of a mild intellectual decline in
the last few years. A CT scan showed a right
thalamic haemorrhage with extension to the
posterior limb of the internal capsule and to
the ventricular system, particularly the third
and right lateral ventricles (figure). A
moderate cerebral cortical atrophy with
mild ventricular dilatation was also ob-
served. After five days he was awake and
alert, but aphasic, without aphasia, apraxia,
agnosia or disturbances of the body
scheme. There was no right-left disorienta-
tion. His memory for past events was
normal, but the immediate recall was poor,
and he had difficulty in learning new
material. While drawing, he worked from
right to left on the right side of the paper,
with neglect of the left side contours. He
placed the midpoint of a line far to the right.

He was orientated in person and time, but
when asked where he was he stated that he
was in Finland. When he was told he was in
a Buenos Aires's clinic he said: "Oh, yes,
I'm in a clinic: it is a nice clinic like the one
you have mentioned, but it isn't in Buenos
Aires, it is in Finland". While in the clinic he
always insisted that it was located outside
Buenos Aires, although the location of the
reduplicated place was varied from day to
day. Later on he was transferred to his
home where this remarkable disorder of
orientation persisted until his death, two
months after the stroke. The following is an
example of this disorientation. "Where are
you?" "I'm at home, I've been living here
for 30 years" (correct). "Where is your
home?" "They say it is in Buenos Aires, but
I don't know which city is this". (Sometimes
he precisely mislocated his home in any
other city or country in the world, such as
Paris, Quito, Santiago de Chile, Venezuela
and Spain). "Which street do you live in?"
"I live in Talcahuano Street" (correct).
"But Talcahuano Street is in Buenos Aires,
isn't it? "Yes, yes, it may be". "Then your
house is in Buenos Aires?"; "They say so,
but I don't think it is in Buenos Aires".

To our knowledge, this is the first case
of environmental reduplication associated
with a thalamic injury. Fisher4 described a
hypertensive woman with a right thalamic
haemorrhage, who had a severe disorienta-
tion of place, but, unlike our patient, she
did not show the pattern of reduplication.
We think this striking behavioural abnor-
mality developed in this case as a conse-
quency of an acute right hemisphere
injury superimposed on a background of a
mild diffuse cerebral involvement. It is also
interesting to note that the reduplicative
phenomenon persisted despite the fact that
the patient was transferred from the clinic to
his home.

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parietal lobe injury. J Neurol Neurosurg
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Letters

Intraduillary spinal schwannoma

Sir: Schwannoma, originating from the
schwann cells, accounts for approximately
30% of primary intraspinal neoplasms.1 2

However, intramedullary schwannoma of
the spinal cord has been rarely reported.3 4
Although microsurgical techniques and
computed spinal tomography have become
available, total removal of a spinal intramedullary tumor is considered to be a
difficult procedure and neurosurgical
sacrifice may remain after operation.
Intraduillary schwannoma may often be
misdiagnosed as spinal cord glioma on
operation, and in these instances, total

Fig CT scan. Right thalamic haemorrhage with
intraventricular extension