middle cerebral artery: reference values at rest and during hyper-
ventilation in healthy volunteers in relation to age and sex.

Doppler ultrasound for the assessment of intracranial arterial flow

Background Factors and Clinical Symptoms of
Major Depression With Silent Cerebral Infarction

To the Editor:

In their recent article, "Background factors and clinical symp-
toms of major depression with silent cerebral infarction," Fujikawa
et al all used magnetic resonance imaging to determine
whether depressed patients had or did not have silent
cerebral infarction and then compared the two groups in terms of
a variety of risk factors for stroke and depression. It is surprising
that the authors do not relate their findings to a large body of
literature reporting similar results but using different terminology,

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Brain magnetic resonance imaging findings in ECT-induced

Response

We thank Drs Krishnan, Tupler, and McDonald for their
comments on our article. In our study, we observed that cere-
brovascular damage plays an important role in the pathophysi-
ology of major depression in the elderly and that risk factors for
cerebrovascular disease (eg, hypertension) are related to the onset
of senile major depression. It was reported that senile major
depression often persisted despite antidepressant therapy and has
a poor prognosis. Figiel et al reported that basal-ganglia
hyperintensities are linked to an increased likelihood of delirium
with antidepressants.

We suspect that major depression with silent cerebral infarction
(especially mixed artery infarction with broad obstruction) persists
despite administration of antidepressants and is related to refrac-
tory depression in old age. Subsequently, we suspect that major
depression with mixed artery silent cerebral infarction can pro-
gress to vascular dementia. We would like to study further the
response in the elderly to antidepressant therapy and the long-
term prognosis for major depression with silent cerebral infarction.

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‘Normal’ 99mTc-HmPAO Distribution in Large
Subacute Middle Cerebral Artery Infarct

The term “luxury perfusion” is used to describe situations of
paradoxical cerebral blood flow (CBF) increase 1 or flow values
that are high in comparison with metabolic demand. The idea
prevailed until 1993 that the 99mTc hexamethylpropylene
amine oxime (99mTc-HmPAO) hyperfixation observed in the subacute
stage after cerebral infarct was due to luxury perfusion. However,
recent observations have shown that in these circumstances,
hyperfixation with 99mTc-HmPAO does not always correspond with
CBF increase. In the following case, single-photon computed
tomography (SPECT) was clearly abnormal with 18F-fluorodeoxy-
[23]Tc ethylscinate dimer (99mTc-ECD) but paradoxically normal with
99mTc-HmPAO in the subacute stage of middle cerebral artery
(MCA) infarct.

A 34-year-old man came to our hospital on May 21, 1991, with
meningeal hemorrhage consequent to rupture of a left carotid
artery aneurysm. He underwent surgery 3 days later without
Background factors and clinical symptoms of major depression with silent cerebral infarction.
K R Krishnan, L A Tupler and W M McDonald

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