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Fall related to epileptic seizures in the elderly

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Introduction

• From a third to a half of older individuals fall each year.
• From 7 to 12 per 1,000 older individuals have epileptic seizures.
• Both falls and epileptic seizures are harmful in the elderly.
• Moreover, although seizures may cause falls, their relationship is poorly documented in this population.
Case studies

• 4 elderly women
• Mean age: 84.5 years
• Mean comorbidity: 4.2
• Mean medication: 3.2
• Admitted to Geriatric Department for falls
# Table 1: Characterisation of 4 elderly cases with seizure-induced falls

<table>
<thead>
<tr>
<th>Case Age</th>
<th>Previous history of epilepsy</th>
<th>Seizure types</th>
<th>Seizure symptoms-induced falls</th>
<th>Seizure aetiologies</th>
<th>Treatment</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/96</td>
<td>No</td>
<td>Simple focal seizures from parietal origin</td>
<td>Focal tonic posturing</td>
<td>Vascular and degenerative disorders</td>
<td>Levetiracetam 1,000 mg/day</td>
<td>Recovery Follow-up 6 months</td>
</tr>
<tr>
<td>2/88</td>
<td>No</td>
<td>Simple focal seizures from frontal origin</td>
<td>Focal tonic posturing</td>
<td>Vascular and degenerative disorders</td>
<td>Levetiracetam 2,000 mg/day</td>
<td>Recovery Follow-up 6 months</td>
</tr>
<tr>
<td>3/76</td>
<td>Juvenile myoclonic epilepsy</td>
<td>Generalised myoclonic seizures</td>
<td>Bilateral, massive myoclonic jerks Loss of consciousness</td>
<td>Late exacerbation of juvenile myoclonic epilepsy</td>
<td>Levetiracetam 1,000 mg/day</td>
<td>Recovery Follow-up 6 months</td>
</tr>
<tr>
<td>4/78</td>
<td>No</td>
<td>Generalised myoclonic seizures</td>
<td>Bilateral, massive myoclonic jerks</td>
<td>Precipitated by anti-depressant use</td>
<td>Stopping anti-depressant drug</td>
<td>Recovery Follow-up 6 months</td>
</tr>
</tbody>
</table>
Conclusion

• Falls may be caused by different seizure types and appear to be underestimated due to difficulties of seizure diagnosis in the elderly.

• Recognizing falls related to seizures is important in geriatric practice, as it facilitates adequate management.