Orally disintegrating olanzapine tablets in the treatment of a neuropsychiatric patient with dysphagia

In addition to being effective in the treatment of schizophrenia, second-generation antipsychotics are also very useful in the treatment of some mood disorders; however, non-compliance in taking antipsychotics has always been a major problem in the treatment of both schizophrenia and mood disorders (1,2). An orally disintegrating tablet formulation of olanzapine (ODT olanzapine) is designed to dissolve upon contact with saliva, and to provide an alternative method of administering medications to patients whose non-compliance is related to difficulty in swallowing (3,4). Dysphagia is commonly seen in terminally ill cancer patients, especially those with oesophageal cancer (5). ODT olanzapine offers a treatment choice for dysphagic, psychotic, mood disordered or delirious cancer patients in an advanced stage of disease.

The patient was a 65-year-old, married, retired government employee. He started to experience episodic symptoms of elated mood, decreased need for sleep, high energy, irritability, violence to family members and buying sprees at the age of 49. He also started drinking heavily at the age of 51 and increased his liquor intake up to 350–500 ml a day. He began to suffer from withdrawal tremors, sleep disturbance and auditory hallucinations hours to days after stopping drinking or even while drinking.

He also suffered from acid regurgitation, heart burn, belching and retro-sternal distress for months before he went to see a gastroenterologist. An ulcerative tumour was found on panendoscopy. The tumour proved to be an oesophageal squamous cell carcinoma at stage IVa ($T_xN_xM_{1a}$). Chemo-radiotherapy was recommended because the tumour was not resectable, and a chemo-port implantation was done.

Two days after the surgery, a psychotic episode manifest as elated mood, irritability, sleep disturbance, grandiosity, auditory hallucinations and psychomotor agitation occurred. The patient threatened the ward staff with a knife. After psychiatric consultation, he was transferred to the psychiatric ward. The diagnoses were inadequately treated bipolar I disorder and alcoholic hallucinosis. He was too dysphagic to swallow conventional antipsychotics and reluctant to accept intramuscular injections, so we prescribed ODT olanzapine, 5–15 mg/day beginning on day 2. In 3–4 days, there was marked improvement in the psychotic manic symptoms and alcoholic hallucinosis. He was discharged on day 21 and was lost to psychiatric follow-up.

About 2 months later, a depressive episode occurred while he was hospitalised in the oncology ward, and mirtazapine oral soluble tablets 30 mg/day and ODT olanzapine 10 mg/day were given for 3 weeks. He then developed a delirious episode with confusion, disorientation, sleep–wake cycle disturbances, paranoid delusions, hallucinations and threats to jump out the fifth floor window. He was again transferred to the psychiatric ward and stayed for 3 days. ODT olanzapine 5–10 mg was given to control the delirium, but he had to be transferred back to oncology because of sepsis. The patient died 26 days later because of complications including pneumonia, sepsis and acute renal failure.

Over the past three decades, ODTs have gained attention as alternatives to conventional oral medications. Patients prefer them to other forms of medication,

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and they are useful in treating bedridden patients with difficulty in swallowing. They offer the additional advantage of treating psychiatric patients who may refuse medication or develop surreptitious behaviours to dispose of it (6).

Olanzapine has long been shown to be effective in the treatment of schizophrenia and mood disorders (7,8). ODTs are as effective as other forms of the medication. Markowitz et al. (9) reported that either normal or sublingual administration of ODT olanzapine resulted in absorption faster than that occurred with standard tablets, while all ways of administration showed similar pharmacokinetic parameters.

Breitbart et al. reported a 76% resolution rate after olanzapine treatment in terminally ill delirious cancer patients, compared with 49% resolution in those treated with haloperidol (10). Shen et al. described the usefulness of ODTs in the psychiatric management of manic symptoms in patients with oesophageal stricture plus chronic pharyngitis (11). Douzenis et al. reported a terminally ill patient who received parenteral nutrition; during his course of parenteral nutrition sublingual administration of ODT olanzapine plus alprazolam was used successfully to relieve his anxiety and tension and to improve his relationship with physicians and his quality of life (12). Our experience indicates that oral administration of ODT olanzapine is also helpful in non-compliant psychotic patients with dysphagia because of advanced oesophageal carcinoma.

Numerous psychotropic agents such as risperidone, aripiprazole, mirtazapine, citalopram, alprazolam and clonazepam are currently available as ODTs. These quickly dissolving formulations may be useful not only in treating non-compliant patients, but also those who have an underlying medical condition that impedes their ability to take oral medications. This may address a choice for resolving an important clinical problem in consultation–liaison psychiatric service.

Hui-Yi Wang[1], Nian-Sheng Tzeng[1,2]

[1]Department of Psychiatry, Tri-Service General Hospital, Taipei, Taiwan; and

[2]School of Medicine, National Defense Medical Center, Taipei, Taiwan

Nian-Sheng Tzeng, MD
Department of Psychiatry,
Tri-Service General Hospital,
#325, Sec. 2, Chenggong Road,
Nei-Hu District,
Taipei 114, Taiwan.
Tel.: 886 2 87923311;
Fax: 886 2 87927221;
E-mail: pierrens@yahoo.com.tw

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