
Since the introduction of paclitaxel as a new antineoplastic agent, the results of several promising trials in solid tumors, such as ovarian and breast cancers, have been published [1, 2].

Encouraged by the study of Wilson et al. [3] we initiated one to evaluate the efficacy and toxicity of paclitaxel in the treatment of non-Hodgkin’s lymphoma (NHL) and Hodgkin’s disease (HD).

Between August 1993 and January 1994 we performed a phase II trial with paclitaxel as single-agent in nine patients with refractory lymphoma. Five of the patients had high-grade non-Hodgkin’s lymphomas (NHL) and four had Hodgkin’s disease (HD). The histology, pretreatments and response to prior therapy are shown in Table 1. All of the patients were refractory to at least two, and most of them to three conventional salvage regimens. In addition, three patients had undergone high-dose chemotherapy followed by autologous bone marrow reinfusion (2 NHL and 1 Hodgkin’s disease). The median time from diagnosis to paclitaxel treatment was 8 months (range 5-187 months) for NHL and 27 months (7-90 months) for HD.

Paclitaxel was administered as a three-hour continuous intravenous infusion at a dose of 120 mg/m² in 500 ml saline. Premedication was ranitidin 50 mg, clemastin 2 mg, ondansetron 8 mg and dexamethasone 20 mg i.v. The interval between treatment cycles was three weeks.

After a total of 21 cycles (median 2, range 1-4) one patient with Hodgkin’s disease achieved a partial remission, a marked reduction in size of pulmonary mass, and in the patient with non-Hodgkin’s lymphoma two minor responses were observed. All other patients had either stable or progressive disease (Table 1). The median survival time for those with Hodgkin’s disease was 5 months (range 3-14+ months) and 4 months (range 3-7 months) for those with NHL.

Toxicity was mild: one case of hypotension and one of renal pain were observed; three patients had pitylisis, a complete onycholysis was seen in one patient, and hematological toxicity was confined to one case of neutropenia WHO 1. The most uncomfortable and common toxic effect (4 patients) was arthralgia with a latency of 24 to 48 hours. Two patients had peripheral neuropathia WHO 1. One patient had nausea and another fever.

The new drug paclitaxel demonstrably acts against some solid tumors and interesting results were available in malignant lymphoma when our study was initiated. Our results indicate that paclitaxel at a dose of 120 mg/m² given every three weeks has a low activity in advanced-disease and heavily pretreated patients. A similar low response rate was reported by Wilson et al. using a similar dose [4]. A slightly

Table 1. Patient characteristics, pretreatment and response to paclitaxel.

<table>
<thead>
<tr>
<th>Patient no.</th>
<th>Sex</th>
<th>Age</th>
<th>Histology</th>
<th>Stage</th>
<th>Extramedial sites</th>
<th>Bone marrow involvement</th>
<th>Therapy</th>
<th>Response</th>
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<td>HD</td>
<td>IV B</td>
<td>Lung</td>
<td>MOPP (3)</td>
<td>ABV</td>
<td>PR</td>
<td>NR</td>
<td>VIM</td>
<td>NR</td>
<td>PD</td>
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<tr>
<td>2</td>
<td>m</td>
<td>35</td>
<td>Nodular sclerosis</td>
<td>IV B</td>
<td>Lung</td>
<td>MOPP (6)</td>
<td>CR</td>
<td>ABMT</td>
<td>CR</td>
<td>MR</td>
<td>Etoposide MTX (5)</td>
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<td>IV B</td>
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<td>MOPP (5)</td>
<td>PR</td>
<td>BLE/VI (5)</td>
<td>ABV/ (7)</td>
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<td>CR</td>
<td>VIM</td>
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<td>VIM</td>
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<td>5</td>
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<td>50</td>
<td>NHL</td>
<td>IV B</td>
<td>Liver Epideral BM Skin/trachea BM</td>
<td>CHOP (6)</td>
<td>CR</td>
<td>CEV (3)</td>
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CHOP = cyclophosphamide, doxorubicin, vincristine and prednisolone; MOPP = mustargen, vincristine, procarbazine, prednisolone; BLD/VI = bleomycin, vincristine, methotrexate and asparaginase; VIM = etoposide, ifosfamide, mitoxantrone; ABV = adriamycin, bleomycin, vinblastine; CEV = cyclophosphamide, epirubicin, etoposide; ABMT = autologous bone marrow transplantation.
better response rate at a dose of 200–250 mg/m² was ob-
served by Younes et al., but toxicity was considerable [5].

In conclusion, within the confines of this limited experi-
ence, paclitaxel showed a weak activity in refractory non-
Hodgkin's lymphoma and Hodgkin's disease at the low dose
of 120 mg/m² used in our study. Based on the data published
by Younes et al., it would appear promising to use paclitaxel
in higher doses in patients with less advanced disease.

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Isolated granulocytic sarcoma of the breast

Introduction

Granulocytic sarcoma (GS) is a tumor composed of immatu-
ture myelogenous cells. It generally occurs at presentation or
during the course of myelogenous leukemia [1]. It rarely ante-
dates the occurrence of leukemia [2]. Common sites of in-
volvement are bone, periosteum, lymph nodes, skin and soft
tissue [1]. Breast involvement by GS is rare. A case of GS
breast, which was misdiagnosed as carcinoma, is described.

Case report

Twenty-five-year-old Ms. S. was diagnosed clinically as
having carcinoma in her right breast in February 1984. She
underwent a right modified radical mastectomy. Two months
later she was referred to Kidwai Memorial Institute of Oncol-
ogy with symptoms of high-grade fever, weight loss, hemop-
tysis, and menorrhagia. Severe pallor, gum hypertrophy, vagi-
nal bleeding, retinal hemorrhage and hepatosplenomegaly
were found clinically. The peripheral blood smear and bone
marrow revealed sudan black positive blast cells and a diag-
nosis of acute myeloblastic leukemia (M2) was made. Review of
the histopathology of the mastectomy specimen and a Leder's Stain (Chloroacetate esterase [CAE]) confirmed the
diagnosis of GS.

The patient was given antileukemic therapy with Injection
Cytosar 100 mg/sqm, tablet 6 TG 100 mg (day 1–day 5), and
Injection Daunomycin 40 mg/sqm on days 1 and 2, along
with supportive care. She did not respond to therapy and
died of septicemia and hemorrhage 3 weeks later.

Discussion

The breast is an unusual site for GS and most cases described
in the literature have been isolated case reports [1-3].
Gartenhaus et al. (1985) reviewed 16 cases of GS of the
breast and added another one. The tumor occurred in young
females with a high incidence of bilaterality. These workers
also reviewed 47 cases of isolated GS, in 83% of which
leukemia developed within an average of one year [1].

Eshghabadi et al. [2] described a patient with GS of the
breast who was still aleukemic at the time of their report.
They described 20/34 cases of isolated GS in which the diag-
nosis was initially missed. In a review of 950 cases of AML
only 2.9% had GS, and in only 0.6% of these did the GS pre-
cede the development of a leukemic blood picture [4]. Bar-
loos et al. (1993) described a case of AML developing mul-
ticentric GS in the breast [3].

Histomorphologically, a case of GS of the breast can be
confused with large-cell lymphoma or poorly differentiated
carcinoma, particularly the infiltrating lobular variety. Con-
firmatory tests include CAE and immunohistochemical dem-
stration of lysozyme and muramidase [5].

The current treatment strategy for a patient with isolated
GS of breast is antileukemic CT with or without RT.
Most patients with isolated GS die of their leukemia
within an average of 16.5 months [1]. The single long-term
survivor described in his review by Gartenhaus et al. [1] was
treated with CT soon after the establishment of leukemic
involvement of the bone marrow. Patients with GS breast
may not necessarily progress to AML [2].

This case report highlights the importance of considering
GS when dealing with a poorly differentiated tumour in the
breast, irrespective of the bone marrow involvement.

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Figure 1. Photomicrograph of breast duct surrounded by sheets of
uniform cells. HE × 100.
References


