**LETTERS**

# Radiation Therapy in Chloroma: A promising palliative manipulation

Dear Editor,

We would like to present the experience of our department concerning the excellent result of radiation therapy in the palliative management of Chloroma. Chloroma, also known as granulocytic sarcoma, is a rare extramedullary tumor composed of immature granulocytic cells[1-3]. It coined "Chloroma" because of its green color. Chloromas are reported in 2.5%-9.1% of patients with acute myeloid leukemia and are often associated with a poor prognosis[1,3]. The most common locations of Chloroma are skin, soft tissue, bone, periosteum and lymph nodes[1-3].

We have the experience of two patients with Chloroma who underwent a palliative course of radiation therapy in Radiation Oncology department of Aristotle University of Thessaloniki. The first patient was a 49-year-old woman presented with severe pain and edema in her right leg. The patient underwent imaging investigations which revealed several masses on sternum, left sacral bone, 5$^{th}$ lumbar vertebra and right inguinal region. The biopsy of the sternum revealed a myeloid sarcoma. The patient received a course of radiation therapy to 2000 Gy in 5 fractions to the right inguinal and demonstrated significant clinical response with a great relief of her symptoms. The second patient was a 70-year-old woman who presented with swelling of her right neck and supraclavicular region. The patient underwent a biopsy of the mass which revealed a myeloid sarcoma. She received a course of radiation therapy to 2000 Gy in 5 fractions and demonstrated a significant clinical response with complete remission of the masses.

The role of radiation therapy in the management of Chloroma is important and many authors in the literature support this method[1-5]. Low doses of radiation may have excellent results in disease control and symptom relief[1,3].

**References**

1. Bakst R, Jakubowski A, Yahalom J. Recurrent neutrotropic chloroma: report of a case and review of the literature. Adv Hematol. 2011; 2011: 854240.
2. Bakst R, Wolden S, Yahalom J. Radiation therapy for chloroma (Granulocytic Sarcoma). Int J Radiat Oncol Biol Phys. 2012; 82: 1816-1822.
3. Bakst RL, Tallman MS, Douer D, Yahalom J. How I treat extramedullary acute myeloid leukemia. Blood. 2011; 118: 3785-3793.
4. Lan TY, Lin DT, Tien HF, Yang RS, Chen CY, Wu K. Prognostic factors of treatment outcomes in patients with granulocytic sarcoma. Acta Haematol. 2009; 122: 238-246.
5. Pacilli L, Lo Coco F, Ramadan SM, Giannì L, Pingi A, Remotti D, et al. Promyelocytic sarcoma of the spine: a case report and review of the literature. Adv Hematol. 2010; 2010: 137608.

Neanidis K[1], Stylianidou S[2], Chatzigiannaki A[3], Bousbouras P[3], Pantoura M[2], Pistevou-Gompaki K[2]

[1] Department of Medical Oncology, 424 General Military NATO Hospital, Thessaloniki, Greece
[2] Department of Radiation Oncology, AHEPA Hospital, Aristotle University, Thessaloniki, Greece
[3] Department of Medical Physics, AHEPA University Hospital, Aristotle University, Thessaloniki, Greece

**Key-words:** Chloroma, Leukemia, Radiotherapy, Palliative.

**Corresponding author:**Professor Kiriaki Pistevou-Gompaki, Department of Radiation Oncology, AHEPA Hospital, Aristotle University, Thessaloniki, Greece, e-mail: kipiste@med.auth.gr

# Pacemaker infection due to *Brucella Melitensis*

Dear Editor,

Brucellosis is a zoonotic disease that often presents with fever and malaise, and it is sometimes complicated by unusual involvements such as meningitis, endocarditis and arthritis[1]. Pacemaker-related infections remain a severe form of complication after implantation, and Brucella spp. are rare agents of pacemaker infections[2].

A 61-year-old man was admitted to the hospital with recurrent papular lesions on the pacemaker implantation site. Standard precautions were taken when placing the pacemaker into the patient to prevent the transmission of infectious agents. Two years after the repeat procedure, the patient complained of papular lesions at the pacemaker implantation site. A soft tissue infection was considered after initial examination, and intravenous sulbactam-ampicillin was subsequently administered to the patient. After the generator pocket was completely removed, the patient was followed up with an ECG-holter, which revealed no sinus pause or bradycardia. The patient was subsequently discharged without

a pacemaker, but he returned to the hospital 15 days later due to the recurrence of the papular lesion on the same site. Blood culture specimens were obtained, and superficial ultrasonography was performed on the patient. Ultrasonography revealed an abscess and a fistula with dimensions of 42 x 15 x 20 millimeters. The remaining pacemaker leads were completely removed. *B. melitensis* was isolated by cultures from blood, sputum samples, drained materials from the abscess and the pacemaker pocket. A combination of doxycycline (2 x 100 mg/day) and rifampicin (1 x 600 mg/day) for 6 weeks was administered. The patient eventually recovered fully, and all blood cultures were negative for *Brucella Melitensis* after the treatment. In conclusion, brucellosis should be considered, especially in endemic regions for the pathogen, when papular lesions at the pacemaker site are observed.

**References**
1. Franco MP, Mulder M, Gilman RH, Smits HL. Human brucellosis. Lancet Infect Dis. 2007; 7: 775-786.
2. Francia E, Domingo P, Sambeat MA, Montiel JA, Pericas R, Sánchez F et al. Pacemaker infection by Brucella melitensis: A rare cause of relapsing brucellosis. Arch Intern Med. 2000; 160: 3327–3328.

Gungor O[1], Yalcin MM[1], Ozel E[2], Biberoglu K[1], Topal K[3]

[1] Department of Internal Medicine, Faculty of Medicine, Dokuz Eylul University, Izmir, Turkey
[2] Department of Cardiology, Faculty of Medicine, Dokuz Eylul University, Izmir, Turkey
[3] Department of Medical Education, Faculty of Medicine, Pamukkale University, Denizli, Turkey

**Key words:** *Brucella spp,* endemic region, pacemaker infection, papular lesion

**Corresponding author:** Ozkan Gungor, Dokuz Eylul University, Faculty of Medicine, Department of Internal Medicine, 35010 Inciralti/ Izmir, Turkey, tel: +902323904254, fax: +902323902053, e-mail: ozkangungor@yahoo.com.tr

# Ovarian metastasis from breast invasive ductal carcinoma

Dear Editor,

Ovarian metastases are detected in 10%-20% of autopsies and 30% of therapeutic oophorectomy specimens from cases of breast carcinoma. Approximately 6%-7% of ovarian cancers and 10% of bilateral ovarian malignancies discovered during surgical intervention are metastatic[1,2]. Although invasive lobular carcinoma has a much greater tendency to metastasize to the ovary, 75% of ovarian metastases are from invasive ductal cancers due to its higher prevalence[1-4].

We present the case of 53 years old female, who was admitted with the diagnosis of a perforated viscus. She underwent laparotomy and was indentified with solid multinodular masses on both ovaries. A Hartmann's procedure, omentectomy and total hysterectomy with bilateral salpingo-oophorectomy was performed. Pathology confirmed perforation of the inflamed sigmoid diverticulum, ovarian masses histologically demonstrated metastatic cancer from invasive intraductal Ca grade III, keratin (+), e-cadherin (+), ER (+), PR (+), c-erb2 (-), cytokeratin(-), chromogranin(-). The serosal layer of the body of the uterus was invaded by the same carcinoma.

Ovarian metastases can occur long after treatment for primary breast cancer, with intervals ranging from 1-19 years, during the interventions can be mistaken easily for an ovarian primary[2]. Attention to clinical history and macroscopic features and awareness of this possibility, can help in minimizing errors.

**References**
1. Petru E, Pickel H, Heydarfadai M, Lahousen M, Haas J, Schaider H, et al. Nongenital cancers metastatic to ovary. Gynecol Oncol. 1992; 44: 83-86.
2. Mazur MT, Hsueh S, Gersell DJ. Metastases to the female genital tract. Analysis of 325 cases. Cancer 1984; 53: 1978-1984.
3. Ulbright TM, Roth LM, Stehman FB. Secondary ovarian neoplasia. A clinicopathologic study of 35 cases. Cancer 1984; 53: 1164-1174.
4. Liu LV. [Metastatic cancer in the ovary report of 57 cases]. Zhongua Zhong Liu Za Zhi. 1989; 11:464-467.

Gavriilidis P[1], Ananiadis A[1], Theodoulidis V[1], Toskas I[1], Barbanis S[2]

[1]Department of Surgical Oncology, Theageneio Anticancer Hospital, Thessaloniki, Greece
[2]Department of Pathology, Theageneio Anticancer Hospital, Thessaloniki, Greece

**Key words:** Ovarian metastasis, invasive ductal breast carcinoma, invasive lobular cancer, ovary tumour

**Corresponding Author:** Dr Paschalis Gavriilidis, 2 A Simeonidi STR, 54641 Thessaloniki, Greece, e-mail: pgav7461@yahoo.com