University Health™ Shreveport

UNIVERSITY HEALTH SHREVEPORT

CANCER PROGRAM BIANNUAL REPORT

2013 & 2014

* Formerly: *"Louisiana State University Health Sciences Center-Shreveport"*

2013-2014
CANCER COMMITTEE

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  Committee Chairman

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- Randolph, Mark
- Reiser, Carolyn
- Rowell, John
- Zurn, Christine

INTRODUCTION

Robin Lacour, M.D., M.P.H.
Chairman, Cancer Committee

The Feist-Weiller Cancer Center is an integral part of University Health Shreveport and is a center of excellence in Cancer Research, Treatment, and Education. The Feist-Weiller Cancer Center offers exceptional, comprehensive cancer care from a multidisciplinary team of physicians, nurses, and staff. Our goal is to provide emotional and physical care to each patient and their families. The Feist-Weiller Cancer Center provides well-coordinated care that is focused on prevention, screening, diagnosis, treatment, rehabilitation, and survivorship to patients and their families. We also offer educational programs that benefit patients and medical professionals across our community.

The Cancer Committee is a multidisciplinary team that meets each month and is responsible for monitoring, assessing, and identifying changes that are needed to maintain compliance with the American College of Surgeons Standards for accreditation. The information provided in this report reflects our institution's ongoing commitment to quality cancer care.

Cancer Registry

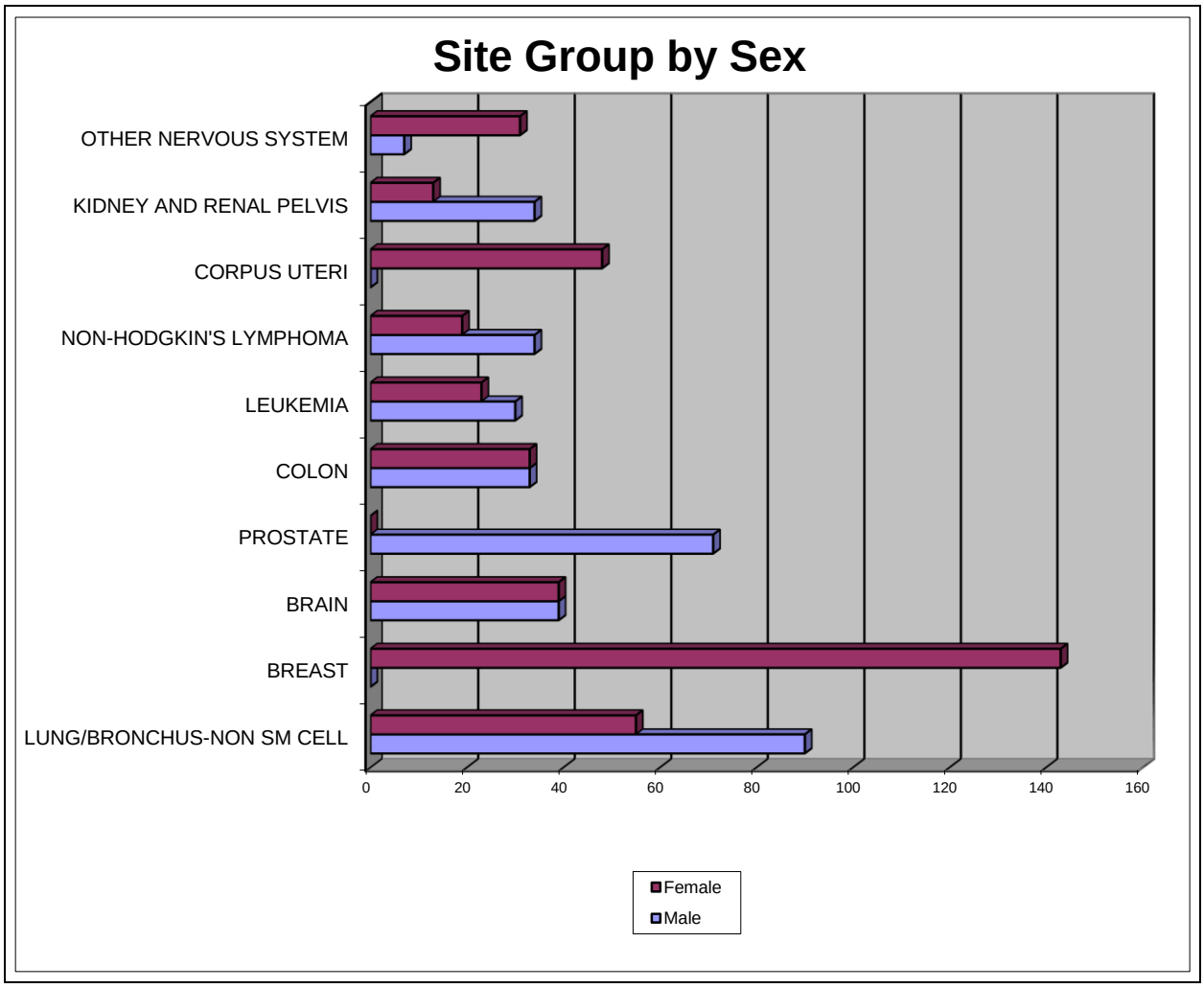
Carolyn L. Reiser, RN, MSN
Coordinator, Cancer Committee

The Cancer Registry is an integral part of University Health Shreveport and is a basic requirement for approval by the American College of Surgeons. The registry provides data management services to meet mandatory state cancer reporting, as well as the data needs of the Medical Staff and other healthcare professions. The database contains over 30,295 cases diagnosed and/or treated at LSU Health System and University Health from 1995 to the present time. The Cancer Registry is also responsible for conducting follow-up on all living patients accessioned into the registry which provides information about the patient's disease status and treatment outcomes.

The following charts and grafts depict the most and least common cancer sites, cancer types and frequency of occurrence in males and females reported for the year 2012. A representative sampling of 2013 publications by University Health Shreveport and Louisiana State University Shreveport Staff reflect the ongoing commitment to research and education.

Site Group	Total Cases		Sex M	Sex F
ALL SITES	1365		694	671
LIP	5		3	2
TONGUE	37		26	11
SALIVARY GLANDS, MAJOR	4		3	1
GUM	3		2	1
FLOOR OF MOUTH	9		7	2
MOUTH, OTHER & NOS	21		15	6
TONSIL	22		19	3
OROPHARYNX	3		3	0
NASOPHARYNX	3		2	1
HYPOPHARYNX	7		7	0
PHARYNX & ILL-DEFINED	3		2	1
ESOPHAGUS	19		13	6
STOMACH	16		14	2
SMALL INTESTINE	8		3	5
COLON	66		33	33
RECTUM & RECTOSIGMOID	35		22	13
ANUS,ANAL CANAL,ANORECTUM	6		4	2
LIVER	23		16	7
GALLBLADDER	2		1	1
BILE DUCTS	3		2	1
PANCREAS	22		13	9
RETROPERITONEUM	5		1	4
PERITONEUM,OMENTUM,MESENT	2		0	2
NASAL CAVITY,SINUS,EAR	11		6	5
LARYNX	33		23	10
LUNG/BRONCHUS-SMALL CELL	33		16	17
LUNG/BRONCHUS-NON SM CELL	145		90	55
LEUKEMIA	53		30	23
MYELOMA	30		19	11
OTHER HEMATOPOIETIC	20		8	12
BONE	4		3	1
SOFT TISSUE	16		11	5
MELANOMA OF SKIN	21		15	6
OTHER SKIN CA	3		0	3
BREAST	143		0	143
CERVIX UTERI	17		0	17
CORPUS UTERI	48		0	48
UTERUS NOS	1		0	1
OVARY	17		0	17
VAGINA	7		0	7
VULVA	20		0	20
OTHER FEMALE GENITAL	2		0	2

Site Group	Total Cases		Sex M	Sex F
PROSTATE	72		71	0
TESTIS	9		9	0
PENIS	2		2	0
BLADDER	25		19	6
KIDNEY AND RENAL PELVIS	47		34	13
URETER	1		0	1
EYE	4		2	2
BRAIN	78		39	39
OTHER NERVOUS SYSTEM	38		7	31
THYROID	19		6	13
OTHER ENDOCRINE	33		19	14
HODGKIN'S DISEASE	9		6	3
NON-HODGKIN'S LYMPHOMA	53		34	19
UNKNOWN OR ILL-DEFINED	28		14	14



Sorted from Most to Least Common				
Site	Total		Sex	
Group	Cases		M	F
ALL SITES	1365		694	671
LUNG/BRONCHUS-NON SM CELL	145		90	55
BREAST	143		0	143
BRAIN	78		39	39
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THYROID	19		6	13
CERVIX UTERI	17		0	17
OVARY	17		0	17
STOMACH	16		14	2
SOFT TISSUE	16		11	5
NASAL CAVITY,SINUS,EAR	11		6	5
FLOOR OF MOUTH	9		7	2
TESTIS	9		9	0
HODGKIN'S DISEASE	9		6	3
SMALL INTESTINE	8		3	5
HYPOPHARYNX	7		7	0
VAGINA	7		0	7
ANUS,ANAL CANAL,ANORECTUM	6		4	2

Site Group	Total Cases		Sex M	Sex F
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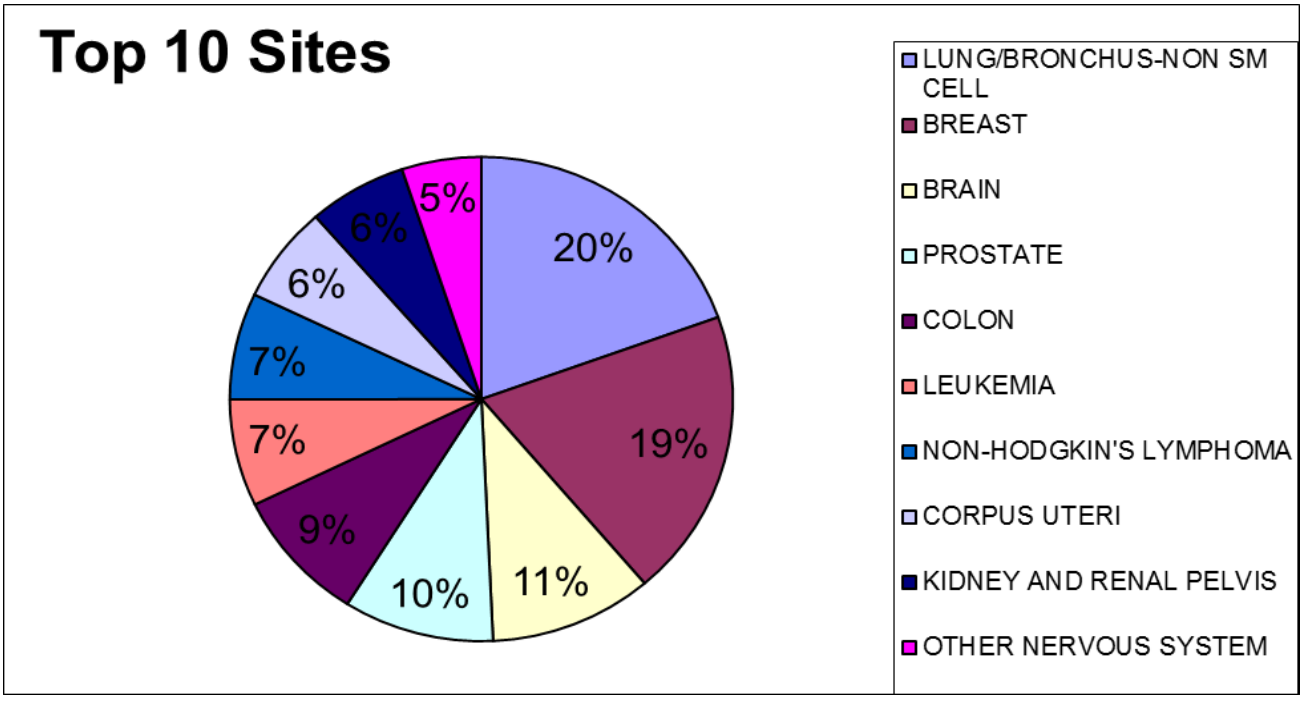
RETROPERITONEUM	5		1	4
SALIVARY GLANDS, MAJOR	4		3	1
BONE	4		3	1
EYE	4		2	2
GUM	3		2	1
OROPHARYNX	3		3	0
NASOPHARYNX	3		2	1
PHARYNX & ILL-DEFINED	3		2	1
BILE DUCTS	3		2	1
OTHER SKIN CA	3		0	3
GALLBLADDER	2		1	1
PERITONEUM,OMENTUM,MESENT	2		0	2
OTHER FEMALE GENITAL	2		0	2
PENIS	2		2	0
UTERUS NOS	1		0	1
URETER	1		0	1



Head and neck cancer with lower neck nodal metastases: management of 23 cases and review of the literature.

Federico Ampil, M.D., Cherie Nathan, M.D., Guillermo Sangster, and Gloria Caldito

University Health Shreveport and Feist-Weiller Cancer Center, Shreveport, LA

Background: Lymph nodes which occupy the lowermost part of the neck include level IV or supraclavicular nodes. Lower neck nodal metastases (LNNM) in people with head and neck cancer (HNC) represent advanced disease with some chance of cure. Because of the infrequency of HNC-LNNM, at the optimal management of such a complicated neoplastic condition is not well documented. This retrospective study describes the experience with the management of patients with HNC-LNNM over a 19-year period.

Methods: A review of the radiation oncology records and imaging and pathology reports was performed to identify the subjects of this clinical investigation. From a total of 2275 HNC patients, 23 people (1%) were managed with intent to treat for HNC–LNNM between 1989 and 2007. The diagnosis of LNNM was based on abnormal palpable disease on physical examination (two patients) and nodal abnormality according to accepted criteria on computed tomography or positron emission tomography (seven patients) or histologically proven metastatic disease (11 patients). The individuals were classified into three groups: those who underwent definitive surgery and postoperative radiotherapy (group A, eight patients), those who were treated by chemoradiation (group B, nine patients), and those who received single modality therapy (group C, six patients). Definitive surgery for laryngeal cancer usually consisted of total laryngectomy (with partial pharyngectomy in one patient) and modified neck dissection of levels II–IV nodes. Patients with oral cavity cancer were managed by composite tumor resection with neck dissection of levels I–IV nodes. With regard to definitive radiotherapy (defined as irradiation with an administered dose of ⩾66 Gy), the mean dose to the primary tumor site including the upper neck was 68.6 Gy and to the lower neck 50 Gy; the corresponding mean values for postoperative irradiation were 59.6 and 53.5 Gy. Chemotherapy, on the other hand, consisted of several cycles of Cisplatin and/or 5-Fluorouracil. The details of external beam irradiation and 2-drug chemotherapy use have been described in previous reports. The median follow-up was 19 months (range 1–122 months). The Kaplan–Meier method was used to calculate cumulative survival. Death from any cause was considered in the measurement of overall survival. Longevity was estimated from the date of HNC diagnosis to the date of death or last follow-up. Differences in survival for the employed methods of treatment were compared using the log rank test. Level of significance was $p < 0.05$.

Results: There were 16 men and seven women with a mean age of 53.5 years (range 33–77 years). The primary neoplasms were located in the larynx (12 cases), oropharynx (five cases), and in the oral cavity, nasopharynx, or combination thereof (five cases). In one case, metastatic disease from an unknown primary site was observed at levels III and IV of the neck. LNNM was present alone (eight patients) or was accompanied by other clinically exhibited or imaging-shown cervical nodal metastatic disease at level 2 (13 patients), level 3 (13 patients), and level 7 (two patients). Stage IV HNC was present in 20 people (87%). Seven patients (30%) were alive, and their follow-up ranged from 44 to 122 months. Sixteen patients have died, and their period of survival ranged from 1 to 111 months. Among the 20 individuals evaluable for malignant disease status after therapy, 15 patients (75%) were free of HNC–LNNM prior to death or at last contact; four people (20%) have died with local and/or regional disease, and one patient was dead from locally advanced (distal esophageal) second primary malignancy. The overall 2-year survival rate was 48% and the median survival was 19 months. The 2-year survival rates for groups A, B and C were 63%, 56% and 17%, respectively ($p = 0.04$); the corresponding median survivals were >15, >9 and 9 months. The comparison of patient groups (which included the single modality managed people) may not be appropriate considering that some individuals received only an abbreviated radiation scheme for palliation or were not able to complete the prescribed therapy course. Nonetheless, there were five (22%) long-term (>5 years) survivors, and all of these patients received combined therapy for their HNC–LNNM lesions. An unexpected and interesting finding was the median survival of 11.5 months for the clinically diagnosed LNNMs and 36.5 months for the histologically proven metastases in the lower neck. Acute toxicity associated with employed treatment combinations and quality of life evaluations after therapy were poorly documented in the available records of many patients.

Conclusions: This study suggests that the treatment of patients with HNC–LNNM needs to be aggressive. We believe in the adoption of an individualized management approach using a combination of treatment modes (i.e., preference for definitive surgery with postoperative radiotherapy/chemoradiation in cases of resectable lesions and chemoradiotherapy for unresectable disease) for this complicated neoplastic condition. Whether such combined therapy care truly has positive effects on survival deserves additional investigation.

Should a routine metastatic workup be performed for all patients with Pathologic N2/N3 breast cancer?

Quyen Chu, M.D., Amanda Henderson, M.D., Roger Kim, M.D. Karen Miller, MA, Gary Burton, M. D., Gary Burton, M. D., Fred Ampil, M.D., and Benjamin Li, M. D.

University Health Shreveport and Feist-Weiller Cancer Center, Shreveport, LA

Background: Node-positive breast cancer patients are at risk for metastatic disease. A routine metastatic workup might or might not be necessary for all patients with N2 or N3 diseases. The National Comprehensive Cancer Network guidelines recommend a metastatic workup for patients with T3N1 disease, yet no definitive recommendations are made for N2/N3 diseases. We hypothesized that for patients with operable pathologic N2/N3 diseases, a metastatic workup should only be considered for patients with T3/T4 lesions.

Methods: Two hundred and fifty-six patients with pathologic N2/N3 diseases were identified from a prospective breast cancer database of 1,329 patients with stage 0 to III breast cancer. A metastatic workup included chest x-rays, bone scans, CT scans, and PET scans. Primary end point was incidence of stage IV disease at the time of diagnosis or within 1 month of definitive surgery. Statistical analysis included chi-square test, independent t-test, Kaplan-Meier Survival method, log-rank test, and Cox proportional hazard model. A p value ≤ 0.05 was considered statistically significant.

Results: There were 158 patients with N2 disease (62%) and 98 with N3 disease (38%). Overall, 16% had stage IV disease (N2 = 15%, N3 = 16%). There was no significant difference in age (p = 0.37), tumor size (p = 0.89), tumor grade (p = 0.09), estrogen-receptor status (p = 0.23), or progesterone-receptor status (p = 0.35) between the N2 and N3 groups. Incidences of stage IV disease were T0/T1, 0%; T2, 6%; T3, 22%; and T4, 36%. Multivariate analysis demonstrated that only T stage (p = 0.0006) and grade (p = 0.026) were independent predictors of overall survival.

Conclusions: Our data suggest that only patients with T3/T4 and pathologic N2/N3 disease should undergo a metastatic workup. Based on our data and recent NCCN guidelines, we summarize the following: any patients with T3 N-positive disease or T4 N2/N3 disease should undergo a metastatic workup. To our knowledge, the T4N1 subgroup remains the only high-risk subgroup that requires needed data to determine whether a metastatic workup is warranted. Our group is currently performing such an analysis.

Does obesity have an effect on outcomes in triple-negative breast cancer?

Ronny Mowad, Quyen Chu, M. D., Benjamin, Li, M.D., Gary Burton, M. D., Federico Ampil, M. D., and Roger Kim, M. D.

University Health Shreveport and Feist-Weiller Cancer Center, Shreveport, LA

Background: Among patients with breast cancer, obesity has been associated with an increased likelihood of having triple-negative breast cancer (TNBC). This association has been thought to be due to the antiapoptotic effects of obesity-related proteins. However, the effect of obesity on the outcomes in patients with TNBC remains unclear. We hypothesized that obesity would be associated with decreased overall survival and disease-free survival in these patients.

Methods: A retrospective review of a prospectively maintained database was conducted of patients treated for breast cancer at an academic medical center from March 1998 to September 2011. The body mass index (BMI) of patients with TNBC was calculated at diagnosis. The patients were categorized as normal (BMI < 25 kg/m2), overweight (BMI 25–30 kg/m2), or obese (BMI > 30 kg/m2). The endpoints of overall survival and disease-free survival were analyzed.

Results: A total of 183 patients with TNBC were included for analysis. Of the 183 patients, 24 (13.1%) were normal (BMI < 25 kg/m2), 42 (23.1%) were overweight (BMI 25–30 kg/m2), and 117 (63.7%) were obese (BMI > 30 kg/m2). The median follow-up period was 42.5 months. Of the 183 patients, 2 (9.1%) died in the normal group, 10 (23.1%) died in the overweight group, and 25 (21.4%) died in the obese group (P = 0.28). The patients who were overweight or obese had larger tumors (P = 0.02), a higher T stage (P = 0.001), and higher tumor grade (P = 0.01) than the normal BMI patients. By Kaplan-Meier analysis, normal patients had higher overall survival than the overweight or obese patients, but this difference was not statistically significant (P = 0.29). Disease-free survival was also not significantly different (P = 0.91).

Conclusions: Despite an increased frequency of larger tumors, higher T stage, and higher tumor grade, obesity was not associated with decreased overall or disease-free survival in patients with TNBC.

Is chronic kidney disease an independent risk factor for mortality in breast cancer?

Arielle Dubose, M.D., Quyen Chu, M. D., Benjamin Li, M. D., and Roger Kim, M. D.

University Health Shreveport and Feist-Weiller Cancer Center, Shreveport, LA

Background: Chronic kidney disease (CKD) is an independent risk factor for morbidity and mortality in multiple disease processes. However, not much is known about the relationship between breast cancer and CKD. CKD is associated with increased difficulty in breast cancer screening or surveillance due to increased calcifications on mammography. In addition, there is concern regarding the optimization of serum levels of chemotherapeutics in patients with CKD or on hemodialysis. We hypothesized that CKD is an independent risk factor for mortality in patients with breast cancer.

Methods: A case-matched, retrospective review of a prospectively maintained database was conducted on patients treated for breast cancer at an academic medical center between 1998 and 2011. Glomerular filtration rates (GFRs) were calculated for each patient at the time of diagnosis, and patients with CKD (GFR <60 mL/min) were matched in a 1:2 ratio with patients with GFR >60 mL/min, controlling for age, stage at diagnosis, and race. Primary end points measured were disease-free survival and overall survival. Statistical analysis was performed using Student t-test and Kaplan-Meier.

Results: Of the 1223 total patients, 54 (4%) had CKD. One hundred five patients without CKD were matched for age, stage at diagnosis, and race. Mean GFR among patients with and without CKD were 47.6 and 83.2 mL/min, respectively ($P < 0.001$). The 5-y overall survival was 77% for patients with CKD and 86% for patients without CKD ($P = 0.47$). Disease-free survival was 64% and 81%, respectively ($P = 0.45$).

Conclusions: Based on our data, CKD does not appear to have a significant impact on outcomes in patients with breast cancer.

Short survival after palliative radiotherapy for brain metastases in lung cancer. Does the end justify the means?

Federico Ampil, M.D., Gloria Caldito, PhD, Glenn Mills, M.D., Andrei Balandin, M. D. And John Ponugupati, M. D.

University Health Shreveport and Feist-Weiller Cancer Center, Shreveport, LA

Background: People with lung cancer (LCa) and symptomatic metastatic disease deserve palliative radiotherapy to promote a better quality of remaining life. On the other hand, in the case being described that of a LCa patient with brain and spinal metastases who died shortly after irradiation— could management consisting of hospice and/or supportive care have been a better choice? Prognostic factors were analyzed in this retrospective study of the early deaths of 20 LCa patients with brain metastases in order to assist in a more rational decision making regarding treatment.

Methods: Although the palliative management suggested by the oncologist for a patient with stage IV cancer is often considered to be correct, it is sometimes difficult to ascertain whether the individual is in the palliative or terminal stage. Such is the conundrum associated with the case being presented. The literature suggests that a significant proportion of people with brain metastases (BRM) die within a short period of time after palliative cranial irradiation (PCI). To avoid the routine practice of whole-brain radiotherapy, which might be nonbeneficial and represent overtreatment in such patients, identification of risk factors predictive of short survival would be an important goal. The objectives of this study were to characterize the clinicopathologic features in patients with lung cancer (LCa) who did not live long after PCI for BRM and relationship to early demise.

Results: A retrospective study of 20 people (16 men and 4 women with a mean age of 58.9 years; range 44-72 years) with LCa who succumbed early (within 2 months) after PCI for BRM was undertaken. This review of cases is an institutional review board–approved outcome investigation. Charts were examined to collect demographic data which included patient age, duration of survival, number of metastatic lesions in the brain, intrathoracic extent of the lung tumor, performance status, tumor histology, the presence or absence of intercurrent illness, and extracranial metastases. Many individuals were younger (16 of 20; 80%), had non–small cell lung cancer (15 of 20; 75%), did not have extracranial systemic disease (14 of 20; 70%), experienced other coexisting illness (13 of 20; 65%), and had demonstrated intrathoracic regional metastases (12 of 19; 63%) and solitary brain metastasis (12 of 20; 60%), as well as a poor performance status (10 of 18; 56%) with an Eastern Cooperative Oncology Group score of 3. Furthermore, the majority (16 of 20; 80%) of these people were symptomatic and needed palliation; their short survival precluded an evaluation of response to treatment.

Conclusions: The use of whole-brain irradiation, considered inappropriate for all patients with BRM, may be beneficial only in select individuals with a good performance status. Recently, it has been made known that a significant proportion of people with BRM do not survive for longer than 2 months.[1] We undertook this review of patients with LCa with BRM and short survival because it is these people for whom cranial irradiation would seem to be cost-ineffective and who may do best with treatment that minimizes time and transportation requirements. Our study was an attempt to identify clinicopathologic features indicative of early demise. There were a few preponderant findings in this patient series that were in accord with recognized poor prognostic features predictive of a short life. When cure is no longer a consideration, the aim of palliative therapy should be to keep the patient alive and well (with minimal symptoms), out of the hospital, and off treatment.[3] Radiotherapy, in this regard, should always focus on alleviation of symptoms. In approximately 50% of people with cancer, a stage is reached when active treatment will not prolong life—the terminal phase.[4] Prognostic models in the literature might

guide the clinicians' decision making, but, currently, the clinicopathologic factors determining an early death are not well defined. These potential predictors (alone or in combination) have included increasing age, poor performance status, nonresponsive BRM to corticosteroid therapy, the presence of extracranial metastatic disease, multiple BRM, uncontrolled primary tumor, and non–small cell lung cancer histology.

Our short report, notwithstanding the limitations inherent in any retrospective study, permitted us to highlight the facts that there are select patients with LCa with BRM whose life expectancy is extremely short despite the administration of cranial irradiation and the precise characterization of these people deserves further clarification. Until more compelling evidence is available, we believe that the risk of early demise based on the presence of clinicopathologic features, such as non–small cell lung cancer, elderly age group, multiple metastatic lesions in the brain, poor performance status, and the presence of extracranial systemic disease (characteristics which were observed in a recent report[9]), would better define the subgroup of individuals, even if symptomatic, who might need supportive care instead of whole-brain irradiation.