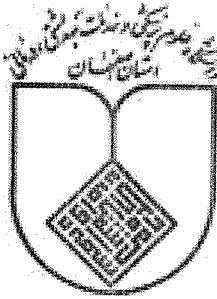


سازمان
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سازمان علمی و تحقیقاتی
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Isfahan University of Medical Sciences
School of Medicine

Thesis for Pathology specialty Degree

Title:

**Evaluation of Frequency of Occult Metastasis to
Iliac Bone Marrow in Patients with Lung
Cancer in Isfahan during 2007-2008**

Project number: 387092

By:

Dr Elham Amjadi

Supervised by:

Dr Mohammad Hosein Saneie
Associate professor
School of Medicine

Dr Gholamreza mohajeri

Assistant professor
School of Medicine

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Abstract:

Background

The clinical relevance of bone marrow micrometastases (BMM) in non-small cell lung cancer (NSCLC) is undetermined, and the value of such analyses in advanced stage patients has not been assessed previously. Thus, the purpose of this study was to evaluate the clinical relevance of BMM detected by immunohistochemistry (IHC) and Polymerase chain reaction (PCR) in patients with NSCLC by evaluating of iliac and costal bone marrow specimen during thoracotomies for resection of lung cancer.

Methods

This descriptive - analytic prospective cross-sectional study was performed in department of thoracic surgery, Alzahra university hospital from September 2008 to June 2009. To evaluate the bone marrow a cylindrical iliac bone specimen before tumor resection was taken. PCR and IHC were performed for each specimen. All data were analyzed by SPSS ver 16 using chi square and t tests.

Results

Among our cases only one patient showed positive PCR for bone marrow micrometastasis in iliac region. IHC method fails to determine any iliac bone marrow micrometastasis. 14 Of 41 patients (34%) were positive for BMM by PCR. Our data showed significant association between both Intraoperative and pathologic staging and rib micrometastasis (p value = 0.017 and 0.023 respectively). However, when predictor variables such as age, sex, histology, tumor location, side of tumor, involved lobe, smoking, or weight loss are analyzed, no correlation can be found between micrometastasis prevalence and any of those variables.

Conclusion:

Our study suggests that bone marrow micrometastasis in a sanctuary site (rib) is associated with advanced stages of lung cancer.

Key words: lung cancer, micrometastasis, IHC, PCR

Table of content:

Chapter 1: <i>introduction</i>	1
1.1 Background	2
1.2 Risk factors.....	4
1.3 Screening	7
1.4 Diagnosis.....	7
1.5 Pathology	8
1.6 IHC features	12
1.7 Clinical manifestation.....	13
1.8 Prognosis	30
1.9 Summery	32
Chapter 2: <i>Aims and Hypothesis</i>	35
2.1 General Objective	36
2.2 Specific Objectives	36
2.3 Research Questions	37
2.4 Research Hypothesis.....	38
2.5 Applied goal of study	38
Chapter 3: <i>Materials and Methods</i>	39
3.1 Materials and Methods	40
Case selection and randomization:	40
Statistical Analysis:	42
Calculation of patients number:.....	43
3.2 questionnaire	44
Chapter 4: <i>Results</i>	45
4.1 Results 3.1	46
Chapter 5: <i>Discussion</i>	60
5.1 DISCUSSION	61
Chapter 6: <i>References</i>	67
6.1 REFERENCES	68
Persian Abstract.....	74
Biography	75

Tables:

Table 1.1: Symptoms of lung cancer.....	13
Table 1.2: AJCC TNM staging system for lung cancer	17
Table 1.3: Proposed 7th edition TNM staging system for lung cancer.....	18
Table 4.1: Baseline patient characteristics.....	47
Table 4.2: Frequency of rib micrometastasis diagnosed by PCR and IHC	48
Table 4.3: Mean age (and standard deviation) of patients	49
Table 4.4: Frequency of sex distribution of patients	50
Table 4.5: Frequency of symptom duration (days) of patients	51
Table 4.6: Frequency of presence of weigh loss among patients	52
Table 4.7: Frequency of location of cancer among patients	53
Table 4.8: Frequency of type of pathology among patients	54
Table 4.9: Frequency of side of cancer among patients	55
Table 4.10: Frequency of involved lobe among patients	56
Table 4.11: Frequency of cancer staging	58
Table 4.12: Frequency of pathological cancer staging	59

Figures and Diagrams:

Figure 1.1: Age-adjusted cancer death rates among US men for selected	3
Figure 1.2: Age-adjusted cancer death rates among US women	3
Figure 1.3: Typical peripheral location of pulmonary adenocarcinoma.....	11
Figure 1.4: well differentiated adenocarcinoma.....	11
Diagram 4.1: Frequency of rib micrometastasis diagnosed by IHC and PCR...	49

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بررسی فراوانی نسبی در گیری مخفی تومورال مغز استخوان ایلیاک در بیماران مبتلا به

کانسر ریه در شهر اصفهان در سال 86-87

خلاصه

مقدمه: اهمیت بالینی میکرومتاستاز مغز استخوان در سرطان های غیر سلول کوچک ریه هنوز نا مشخص است و ارزش این گونه ارزیابی ها در بیماران مراحل پیشرفته سرطان ریه پیش از این بررسی نشده است. لذا هدف از این مطالعه تعیین اهمیت بالینی میکرومتاستاز مغز استخوان به وسیله PCR و ایمونوهیستوشیمی (IHC) در بیماران مبتلا به سرطان های غیر سلول کوچک ریه بر روی نمونه مغز استخوان ایلیاک و دنده حین توراکوتومی به منظور رزکسیون کانسر ریه است.

مواد و روش ها: این مطالعه یک مطالعه مقطعی توصیفی تحلیلی است که در سال 1386 و 1387 در بخش جراحی توراکس بیمارستان الزهرا(س) اصفهان انجام شد. برای بررسی مغز استخوان یک نمونه استوانه ای از استخوان ایلیاک بلا فاصله قبل از رزکسیون تومور گرفته شد. IHC و PCR برای هر نمونه انجام شد. در نهایت تمامی داده ها با استفاده از نرم افزار SPSS نسخه 16 به وسیله آزمون های کای اسکوئر و t مورد تحلیل قرار گرفت.

یافته ها: در میان بیماران این مطالعه تنها یک بیمار PCR مثبت برای نمونه استخوان ایلیاک داشت. IHC هیچ کدام از میکرومتاستاز های مغز استخوان ایلیاک را نشان نداد. 14 بیمار از 41 مورد (34%) PCR مثبت برای میکرومتاستاز مغز استخوان دنده داشتند. داده های ما همراهی معنی داری بین مرحله بندی حین عمل و پاتولوژیک با میکرومتاستاز مغز استخوان دنده نشان داد (به ترتیب $p value = 0.017$ و $p value = 0.023$). اما وقتی متغیر هایی مثل سن، جنس، هیستولوژی، محل تومور، سمت تومور، لوب درگیر، سیگار و کاهش وزن مورد تحلیل قرار گرفتند رابطه ای با میکرومتاستاز مغز استخوان دنده نداشتند.

نتیجه گیری: مطالعه ما نشان داد میکرومتاستاز مغز استخوان در ناحیه ای دور دست (دنده) با مراحل بالاتر سرطان ریه ارتباط دارد.

واژه های کلیدی: سرطان ریه، میکرومتاستاز، PCR، IHC