HYPERCALCEMIA IN PATIENTS WITH LYMPHOMA

Agustina Pia Marengo[1], Fernando Guerrero Pérez[1], Paula García Sancho de la Jordana[1], Santiago Mercadal Vilchez[2], Eva Gonzalez-Barca[2], Inmaculada Peiró Martinez[3], Carles Villabona Artero[1]

1 Department of Endocrinology and Nutrition, Hospital Universitari de Bellvitge - IDIBELL. L'Hospitalet de Llobregat (Barcelona, Spain).

2 Department of Clincal Hematology, Institut Català d'Oncologia. L'Hospitalet de Llobregat (Barcelona, Spain).

3 Nutrition Unit, Institut Català d'Oncologia. L'Hospitalet de Llobregat (Barcelona, Spain).

INTRODUCTION

Hypercalcemia is a common metabolic complication, it occur in up to 20 to 30 percent of patients with cancer at some time during the course of their disease. The detection of hypercalcemia in a patient with malignant neoplasm signifies a poor prognosis. Calcitriol-mediated hypercalcemia it is believed to be one of the most common paraneoplastic syndromes associated with lymphoma. Hypercalcemia causes significant morbidity and may be a life-threatening, it generally requieres urgent intervention.

AIM

Evaluate clinical and biochemical manifestations as well on the management of hypercalcemia in patients with lymphoma.

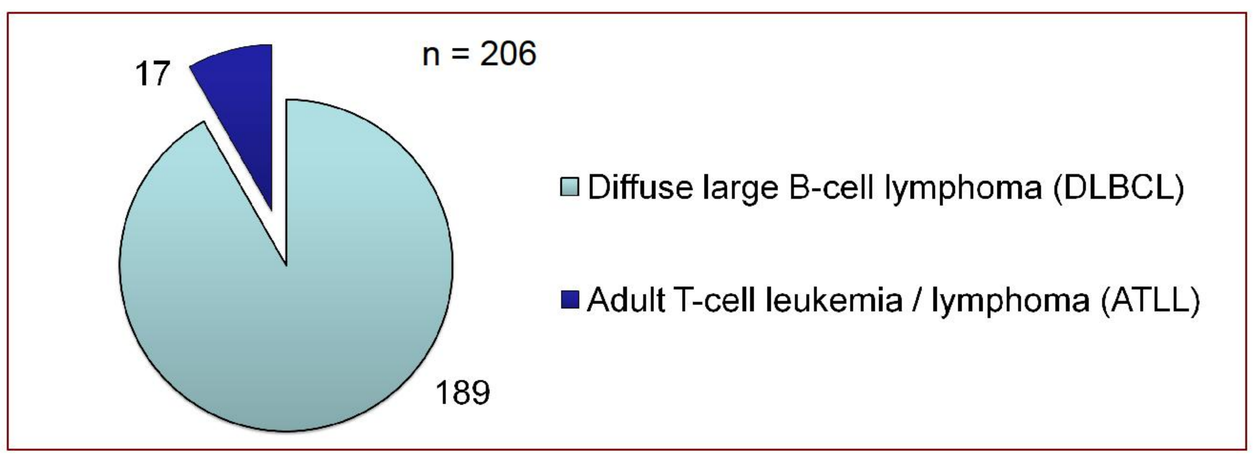
MATERIALS AND METHODS

Prospective analysis of patients with lymphoma who developed hypercalcemia during September-2011 and January-2016.

RESULTS

1- Epidemiology:

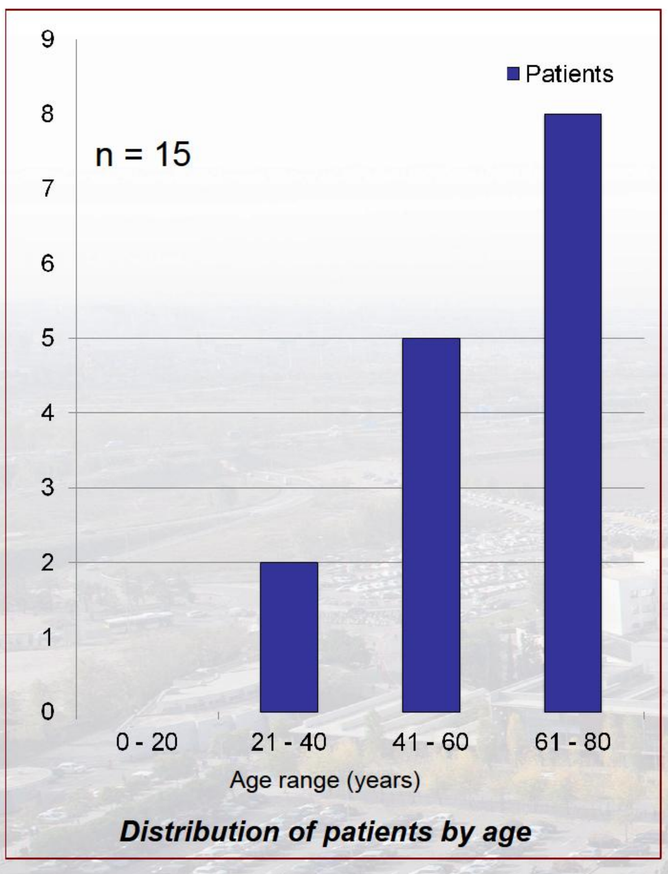
206 patients with high-grade lymphoma were reported, 189 with diffuse large B-cell lymphoma (DLBCL) and 17 with adult T cell leukemia/lymphoma (ATLL).



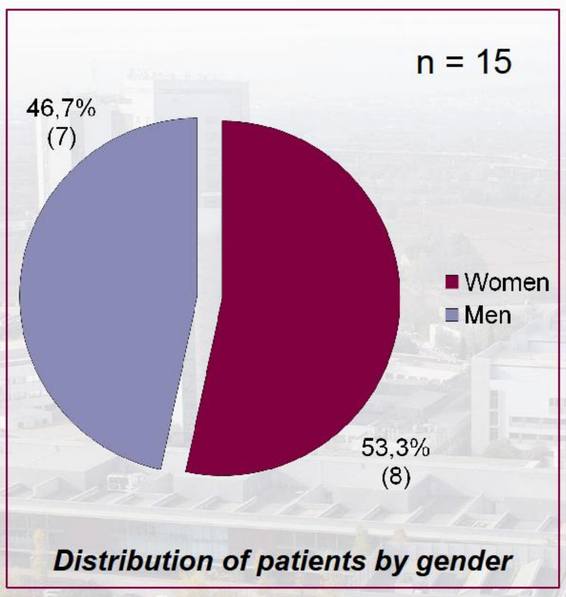
Hypercalcemia was documented in 15 patients, with an **incidence of 7,3%**, of whom 13 where DLBCL and 2 ATLL.

Mostly presented with stage IV disease of Ann Harbor Classification at diagnosis.

Median age was 60 years (range 36-85); 53,3% were women.



Distribution of patients by age



Distribution of patients by gender

2- Clinical data:

Up to one-third of the cases, symptoms of hypercalcemia were reported. Predominantly those involving **neurological manifestations**, such as somnolence and delirium, and **polyuria**.

3- Biochemical laboratory at diagnosis:

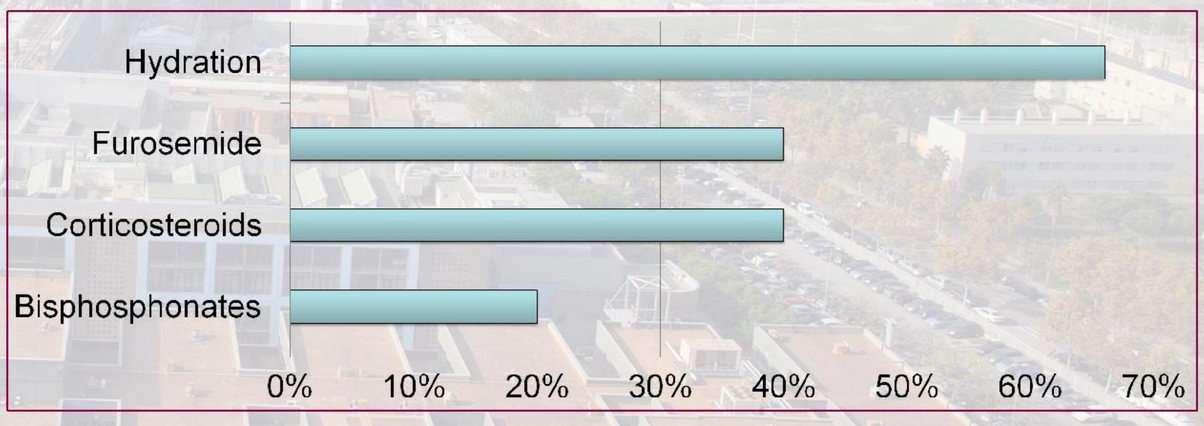
(NA = Not available)

Calcium	Phospate	Calcidiol	Calcitriol	PTH	PTH-rp
(mmol/L)	(mmol/L)	(nmol/L)	(pmol/L)	(pmol/L)	(pmol/L)
2,15 - 2,51	0,85 - 1,5	75 - 250	39 - 193	1,13 - 7,11	< 1,5
3,31	1,37	27	6	< 0,32	< 1,5
3,45	1,52	38	9	0,80	< 1,5
2,83	1,12	53	86	9,80	< 1,5
2,85	1,07	38	200	< 0,32	< 1,5
2,86	0,90	19	NA	< 0,32	NA
2,85	0,86	NA	NA	NA	NA
2,61	0,96	48	194	6,10	< 1,1
4,25	1,01	95	161	0,50	< 1,1
2,83	1,24	68	179	0,40	< 1,1
3,28	0,75	79	342	< 0,32	1,90
3,19	0,73	33	NA	< 0,32	NA
2,96	0,77	14	133	0,60	< 1,5
3,16	1,03	54	45	0,70	< 1,5
2,69	0,96	84	160	0,90	< 1,5
2,78	2,09	61	21	< 0,32	< 1,5

- Mean serum **calcium** was 3,1 mmol/L ± 0,4 (range 2,6 to 4,2) and **phosphatemia** 1,1 mmol/L ± 0,4 (range 0,7 to 1,5).
- Median concentration of serum **calcidiol** was 51,1 nmol/L ± 24,6 (range 14 to 95, reference value above 50). Half of them (7/14) presented deficit.
- **Calcitriol** was determined in 86,6% of the patients, median value was 160 pmol/L ± 99 (range 6 to 342, reference value 39-193), a quarter presented levels above the limit range. Only 1/12 prensented calcitriol-mediated hypercalcemia as unique cause of the disorder.
- Serum **PTH** was suppressed in 12/14 patients.
- **PTH-rp** was determined in 12/15, elevated serum levels were found only in 1 patient with suppressed PTH.

4- Treatment and outcome:

80% of patients were treated with chemotherapy, the rest of them could not begin treatment due to impaired performance status. Slightly more than half of them received specific treatment for hypercalcemia previous to chemotherapy.



Calcium was normalized in 93,3% of treated patients, with a mean value of 2,3 mmol/L ± 0,18; 18 ± 15 days after starting treatment.

CONCLUSION

- **Hypercalcemia associated with lymphoma is a relatively common disorder, predominantly in advanced stages of the disease.**
- **In our series, the classic pattern mediated by calcitriol was observed only in 25% of the patients; most of them had multifactorial pathogenesis.**

Generalitat de Catalunya Departament de Salut
Institut Català de la Salut Gerència Territorial Metropolitana Sud
Bellvitge Hospital Universitari
IDIBELL Institut d'Investigació Biomèdica de Bellvitge
ICO Institut Català d'Oncologia

ECE 2016 42--GP
Bone & Calcium Homeostasis 2
Agustina Pia
Poster presented at: ECE2016 28 – 31 May 2016 MUNICH, GERMANY 18th EUROPEAN CONGRESS OF ENDOCRINOLOGY
PosterSessionOnline.com