

Analysis of causes of rejection of admission to the ICU of cancer patients

Abstract

Introduction: Nowadays, there is a trend towards an “improved prognosis” in oncologic patients requiring intensive care. The limitation of admission to the ICU of oncological patients may be based on the consideration that in this particular situation, it may involve more suffering than benefit for the patient. The main objective of the study was to analyze the causes of refusal of admission to the ICU of patients with solid organ tumors in a tertiary hospital.

Materials and methods: We conducted a prospective study of patients with a diagnosis of solid organ tumor evaluated by the Intensive Care Medicine Department when suffering an acute event. A total of 215 patients were recruited, of whom 73 were admitted to the ICU and 42 were refused admission. The different causes of refusal of admission to the ICU were analyzed in these patients.

Results: The most frequent reason for refusing admission to the ICU was poor quality of life (90.48%, n=38), followed by considering ICU treatment futile (73.81%, n=31). In 78.57% (n=33) of the cases there was no disagreement with the consulting physician on the decision taken by the ICU team.

Conclusions: The most frequent cause of rejection in the ICU in our series of oncologic patients has been poor estimated quality of life. Age by itself has not been a frequent reason for rejecting such patients.

Keywords: ICU, oncology, urgent admission.

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Introduction

Today, there is a trend towards an “improved prognosis” in oncology patients requiring intensive care in the ICU, with a significant reduction in mortality rates.¹ One of the factors that has contributed to this improvement is early admission to the ICU, which has been identified as an independent factor influencing survival.²

The limitation of admission to the ICU for oncology patients may be based on the consideration that in this specific situation, it may involve more suffering than benefit for the patient.³

Table 1 Characteristics related to ICU admission refusal

Variable	Category	No ICU admission	
Reason for not being admitted to the ICU, n(%)	Age	No	36(85,71)
		Yes	6(14,29)
	Severe chronic disease	No	24(57,14)
		Yes	18(42,86)
	Previous functional limitation	No	16(38,10)
		Yes	26(61,90)
	Estimated poor quality of life	No	4(9,52)
		Yes	38(90,48)
	Treatment futility	No	11(26,19)
		Yes	31(73,81)
	Living will	No	41(97,62)
		Yes	1(2,38)
	Patient refusal	No	40(95,24)
		Yes	2(4,76)

As Lecuyer and colleagues point out in their paper, taking a systematic approach of denying ICU admission to these patients would be simplistic. We conducted a prospective study of patients with a diagnosis of solid organ tumor evaluated by the Intensive Care Medicine Department when suffering an acute event. A total of 215 patients were recruited, of which 73 were admitted to the ICU and 42 were refused admission. The different causes of refusal of admission to the ICU were analyzed in these patients and are shown in Table 1.

Table 1 Continued....

Variable	Category	No ICU admission
Patient informed, n(%)	Yes	2(4,76)
	Yes	40(95,24)
	Unknown	2(4,76)
Family is informed, n(%)	No	2(4,76)
	Yes	33(78,57)
	Unknown	7(16,67)
Recorded in the medical record, n(%)	No	4(9,52)
	Yes	38(90,48)
Disagreement with the consulting physician, n(%)	No	33(78,57)
	Yes	7(16,67)
	Unknown	2(4,76)

The most frequent reason for refusing admission to the ICU was poor estimated quality of life (90.48%, n=38), followed by considering ICU treatment futile (73.81%, n=31), followed by a previous functional limitation in the patient 61.90% (n=26) and having a previous chronic disease 42.86% (n=18). As for age, 6 patients (14.29%) were not admitted for this reason. Only in 2.38% (n=1) was admission ruled out due to the patient's previous living will.

Regarding the communication of the decision, it was observed that in 95.24% (n=40) of the occasions the patients and in 78.57% (n=33) the families were informed about the decision not to be admitted to the ICU.

In 90.48% (n=38) of the cases the decision not to admit the patient

to the ICU was recorded, while in 9.52% (n=4) the decision was not recorded. In 78.57% (n=33) of the cases there was no disagreement with the consulting physician on the decision taken by the ICU team.

Table 2 shows the relationship between the variables related to refusal of admission to the ICU and mortality at 3 months. We found that of all these variables, only the futility of treatment reached significant differences; in these patients there was a 9-fold greater probability of death at 3 months (OR=9.05 [95%CI= 1.41-58.17]). Although the results are not statistically significant, higher mortality was also observed in those where the cause of refusal of admission to the ICU was considered to be poor quality of life (p=0.09). The same occurred when we found disagreement with the consulting physician (p=0.06).

Table 2 Relationship between variables related to ICU admission refusal and 3-month mortality

Variable	Category	a/n	OR	p
Reason for not being admitted to the ICU, n(%)	Age	Yes	71/173 5/6	1 (ref.) 0.73 (0.05-10.40)
	Severe chronic disease	Yes	14/18	0.88 (0.16-4.85)
	Estimated poor quality of life	Yes	23/26	4.12 (0.67-25.31)
	Previous functional limitation	Yes	31/38	7.70 (0.71-83.24)
	Treatment futility	Yes	27/31	9.05 (1.41-58.17)
	Living will	Yes	1/1	1.00 (1.00-1.00)
	Patient refusal	Yes	2/2	1.00 (1.00-1.00)
Patient informed, n(%)	Yes	33/40	1 (ref.)	.
Family is informed, n(%)	Yes	28/33	1.75 (0.05-58.38)	0,753
Recorded in the medical record, n(%)	Yes	31/38	3.67 (0.29-46.29)	0,315
Disagreement with family, n(%)	No	29/34	1 (ref.)	.
	Unknown	8-Apr	0.23 (0.04-1.34)	0,101
Disagreement with the consulting physician n(%)	No	29/33	1 (ref.)	.
	Yes	4/7	0.12 (0.01-1.09)	0,060
	Unknown	0/2	1.00 (1.00-1.00)	.

Multiple factors should be considered when deciding whether or not to admit cancer patients to the ICU.⁴ Guidelines for the admission of cancer patients to the ICU should be based on shared decisions between oncologists and intensive care specialists, thus ensuring a complete and adequate evaluation of each case. As Joynt et al. describe in their paper, refusal of ICU admission is a frequent situation and depends on multiple factors including age, mortality probability scales and the availability of ICU beds.⁵

Multicenter studies are needed to help identify predictors of death in this group of patients. Soares et al propose the ASSESS approach, a five-step framework for the comprehensive assessment of ICU cancer patients. These factors encompass the selection criteria for ICU admission, the medical condition at the time of ICU admission, the typology of life-sustaining treatments required, and the degree of organ dysfunction at admission. They also encompass overall long-term and disease-free survival and quality of life.⁶

Communication with the patient and family is a crucial part of the process, the role of the intensivist is to provide both the highest quality clinical care and appropriate advice to the patient and their loved ones regarding prognosis, treatment options and preferences.⁷

Conclusion

In conclusion, in our study the most frequent cause of rejection in the ICU in our series of oncologic patients was poor quality of life. Age by itself has not been a frequent reason for rejecting these patients. We should avoid lumping all cancer patients into the same group and should adopt a multidisciplinary and personalized approach.

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Conflicts of interest

The authors declare no conflicts of interest.

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