



EEBA 2010
XXII ANNUAL MEETING



22 | 23 January 2010
SITGES | BARCELONA | SPAIN

DONOR SELECTION QUESTIONS

Corneal Transplantations from Donors with Cancer

Antonio López-Navidad

Department of Organ & Tissue Procurement for Transplantation &
Tissue Bank

Hospital de la Santa Creu i Sant Pau
Universitat Autònoma de Barcelona.
Barcelona. SPAIN.



INCIDENCE OF OCULAR METASTASES FROM SYSTEMIC CANCER

	GLOBAL		SOLID CANCER		MALIGNANT HEMATOLOGICAL DISEASE [& LEUKEMIA]	
	Subjects / Eyes	Ocular MicroMTS (% of total)	Subjects / Eyes	Ocular MicroMTS (% of total)	Subjects / Eyes	Ocular MicroMTS (% of total)
Allen & Straatsma 1959-1960 [Ref. 9]	-	-	-	-	76 [L = 50]	38 (50%) [33 (66%)]
Bloch & Gartner 1960s [Ref. 10]	-	-	230	28 (12%)	-	-
Eliassi-Rad et al 1976-1980 [Ref. 11]	741 ^a	93 (12.6%)	535 ^b	30 (5.5%)	206 [L = 115]	63 (30.6%) [L = 40 (34.8%)]
Nelson et al. 1973-1983 [Ref. 12]	716 ^c	52 (7.3%)	539 ^d	15 (2.8%)	177 [L = 117]	37 (20.9%) [L = 33 (28%)]
Sant Pau Eye Bank, 1999-2003	204/ 408	2 (1.0%)/ 2 (0.5%)	177/ 354	1 (0.6%)/ 1 (0.3%)	27/ 54 [L = 12/ 24]	1 (3.7%) / 1 (1.8%) [L = 1 (8.4%)/ 1 (4.2%)]



CORNEAL TRANSPLANTATIONS FROM DONORS WITH CANCER

Literature Review, cancer transmission by cornea:

1. Retinoblastoma [Hata, 1939]
2. Adenocarcinoma (bowel?) [McGeorge, 2002]
3. Small cell carcinoma [Florén, 2003]



CORNEAL TRANSPLANTATIONS FROM DONORS WITH CANCER

EEBA & EBAA
accept
cornea donors dying from active
cancer,





CORNEAL TRANSPLANTATIONS FROM DONORS WITH CANCER

Excluded:

- . Solid tumors:
 - . Retinoblastoma,
 - . Anterior segment tumor &
 - . **Ocular adenocarcinoma (EBAA)**



CORNEAL TRANSPLANTATIONS FROM DONORS WITH CANCER

Excluded:

- . Hematological cancers:

- . EEBA:

- Leukemia, Lymphoma & Mieloma

- . EBAA:

- Leukemia & Active Lymphoma



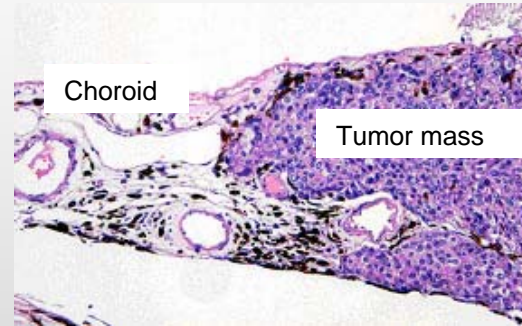
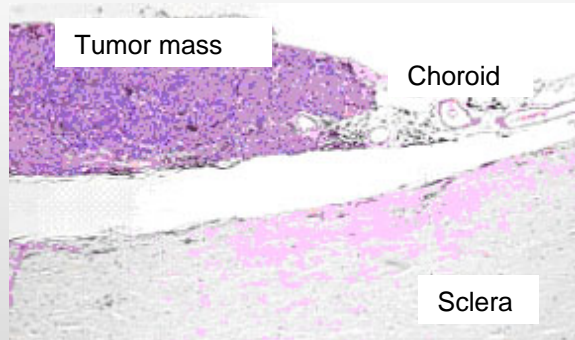
CORNEAL TRANSPLANTATIONS FROM DONORS WITH CANCER

Sant Pau Eye Bank,
1999-2003

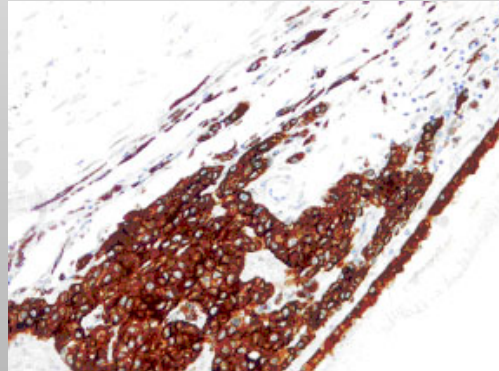
	Donors (%)	Corneas (%)
Solid cancer:	177 (86.8)	305 (93.9)
<i>Lung</i>	38 (18.8)	65 (20.0)
<i>Colon & Rectum</i>	26 (13.2)	45 (13.8)
<i>Breast</i>	23 (11.7)	39 (12.0)
<i>Esophagus & Stomach</i>	15 (6.6)	32 (9.8)
<i>Prostate</i>	10 (5.1)	20 (6.1)
<i>Ovary & Uterus</i>	10 (5.1)	20 (6.1)
<i>Kidney & Bladder</i>	10 (5.1)	19 (5.9)
<i>Pancreas & Liver</i>	11 (5.6)	19 (5.9)
<i>Larynx</i>	8 (3.6)	16 (4.9)
<i>Brain</i>	8 (3.6)	9 (2.8)
<i>Others</i>	8 (3.6)	5 (1.5)
<i>Unknown origin</i>	10 (5.1)	16 (4.9)
Malignant hematological disease:	27 (13.2)	20 (6.1)
<i>Leukemia</i>	12 (6.1)	7 (2.1)
<i>Acute Lymphocitic Leukemia</i>	2 (1.0)	1 (0.3)
<i>Acute Myeloid Leukemia</i>	5 (2.4)	1 (0.3)
<i>Chronic Myeloid Leukemia</i>	5 (2.4)	5 (1.5)
<i>Lymphoma</i>	8 (3.9)	6 (1.8)
<i>Hodgkin</i>	3 (1.5)	3 (0.9)
<i>Non-Hodgkin</i>	5 (2.4)	3 (0.9)
<i>Myeloma</i>	4 (2.0)	4 (1.2)
<i>Myeloproliferative syndrome</i>	3 (1.5)	3 (0.9)
<i>Refractory Anemia & Blasts</i>	3 (1.5)	3 (0.9)
Total	204 (100) (408 eyes)	325 (100)



CORNEAL TRANSPLANTATIONS FROM DONORS WITH CANCER

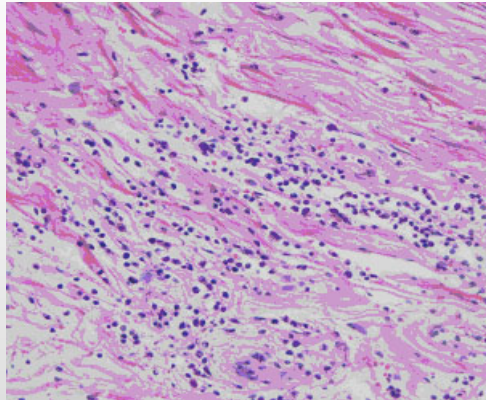


Ocular metastasis of breast carcinoma

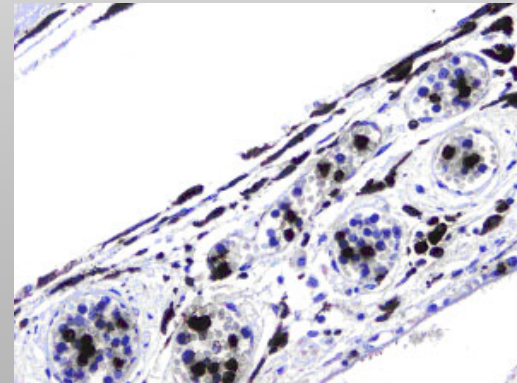




CORNEAL TRANSPLANTATIONS FROM DONORS WITH CANCER



Chronic Myeloid Leukemia





CORNEAL TRANSPLANTATIONS FROM DONORS WITH CANCER

In conclusion (I),

ocular metastatic involvement in patients dying from active solid or hematological cancer is currently very low, and



CORNEAL TRANSPLANTATIONS FROM DONORS WITH CANCER

In conclusion (II),

transmission of malignancy is highly unlikely when there is no tumor infiltration of the eye.



CORNEAL TRANSPLANTATIONS FROM DONORS WITH CANCER

In conclusion (III),

Corneal donors with active cancer can represent a high percentage of corneas viable for transplantation.



CORNEAL TRANSPLANTATIONS FROM DONORS WITH CANCER

Recommendations with cornea donors who died from cancer:

- 1) eyes which present macroscopic tumor masses should be rejected;
- 2) the cornea and anterior chamber of the eye should be carefully evaluated by slit lamp to discard tumor infiltration; and
- 3) histopathological study of the eye should be performed prior to corneal transplantation and cornea should be rejected in cases of tumor cellular infiltration.



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