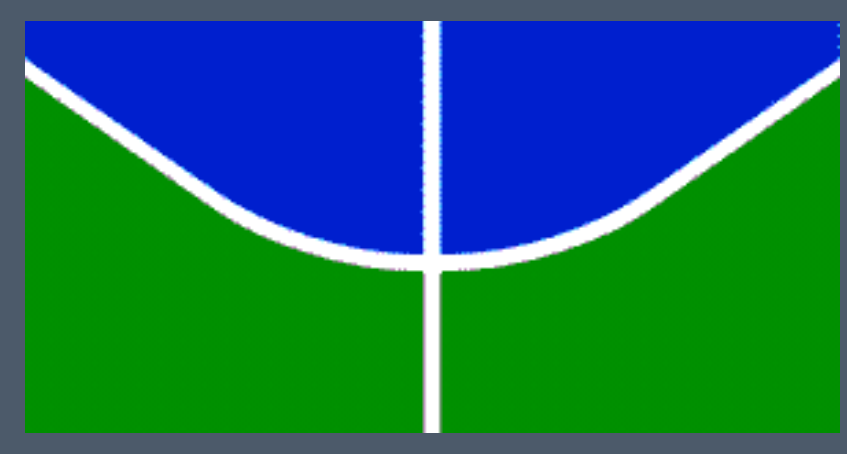


CTLA4 (CYTOTOXIC T LYMPHOCYTE ANTIGEN-4) -318 C/T POLYMORPHISM IN BRAZILIAN CASES WITH HEMORRHAGIC STROKE



UnB

Cardoso, LCA; Pereira, IS; Ferreira, LB; Freire, DO; Kogawa, EM; Siqueira, LBN; Silva, ICR.

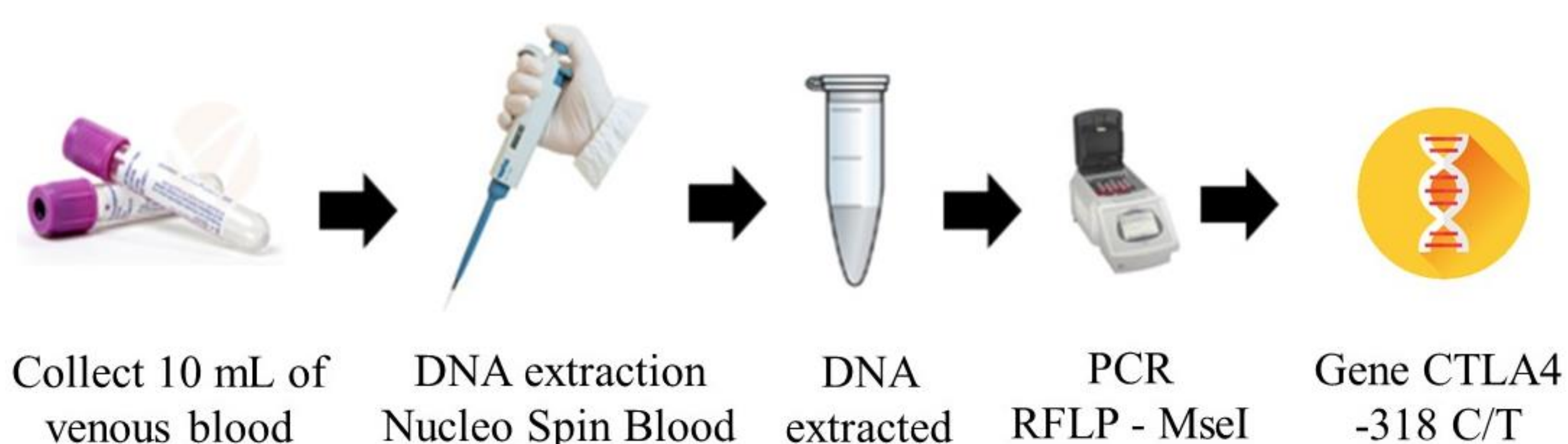


Contact: ligia.canongia@gmail.com

INTRODUCTION

Hemorrhagic stroke (HS) is a multi-factorial disease resulting from combination of environmental and genetic factors. Pro-inflammatory cytokines are associated with stroke and functional polymorphisms of inflammatory genes maybe influence the incidence and outcome of others types of stroke. Cytotoxic T-lymphocyte antigen-4 (CTLA-4) is one of the most important immunosuppressive cytokines that inhibits T-cell activation and terminates the T-cell response by blocking signals stimulates via CD28. CTLA4 is located on chromosome 2q33 in humans. The aim of this study was to verify in a Brazilian population the association between CTLA4 (-318 C/T, rs5742909) gene polymorphism in the promoter region and the risk of developing stroke.

METHODS



This study was approved by the Ethics Committee – FEPECS - CAAE 0095/2010 and CEP - Faculdade de Saúde/UnB CAAE 18855513.3.0000.0030.

RESULTS

Table 1. Distribution of genotypes heterozygote (CT) and homozygote (TT/CC) in case groups and controls.

CTLA4	Group	Group				Total	OR	IC	P
		HS/Aneurism		Control					
		N	%	N	%				
CT		43	34.1	6	15.4	49	2,849	(1,11 - 7,32)	0,025*
TT/CC		83	65.9	33	84,6	116			

* Statistical difference

Table 2. Distribution of clinical features: Glasgow scale, NIHSS, Barthel, tomography and angiography; in individuals with ischemic stroke, hemorrhagic stroke and controls.

		CTLA4		
		CT	TT/CC	P
HAS	yes	33	60	0,59
	no	10	23	
Diabetes	yes	3	0	0,015*
	no	40	83	
Glasgow	intermediary coma	0	9	0,000*
	superficial coma	6	0	
	normality	37	74	
	asymptomatic	0	26	
Rankin	symptom without disabilities	35	36	0,000*
	mild disability	1	5	
	moderate disability	1	7	
	moderate to severe disability	2	6	
	severe disability	4	3	
	severe disability	6	9	
Índice de Barthel	moderate disability	0	6	0,297
	mild disability	17	35	
	functional independence	20	33	
	independence	33	33	

*Statistical difference

DISCUSSION

In summary, this study demonstrated that presence of genotype CT at position -318 of the CLTA4 gene is a risk factor for HS/aneurism on Brazilians. In view of the complexity of the process to causes HS, we cannot exclude the possibility that polymorphisms in other genes can be also responsible for risk factors for HS

ACKNOWLEDGMENTS

