

Hepatitis C Virus infection in Colombian populations with transfusion history and/or Population > 50 years old



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INTRODUCTION

The active cases finding is a global priority taking into account the risk of end-stage liver disease associated with chronic Hepatitis C and the evidence of viral clearance and sustained virologic response in > 93% of patients with chronic HCV infection using Direct Action Antivirals (DAA) treatment in several studies. Moreover, the active case finding is one of the strategies of the World Health Organization plan for viral hepatitis control and elimination by 2030.

In Colombian, 325.600 cases of HCV infection are estimated in general population based on the data of the Center for Disease Analysis (CDA). Interestingly, blood transfusion was the most frequent risk factor among the cohort of patients undergoing treatment through the centralized purchase of the Colombian Ministry of Health and Social Protection in 2019. In addition, history of injections using reused needles and syringes in health centers and pharmacies before the 90's has been identified as a risk factor in the "baby boomers" generation. Therefore, individuals with blood transfusion events before 1996 and people >50 years old are two important key populations for HCV infection in Colombia.

AIM

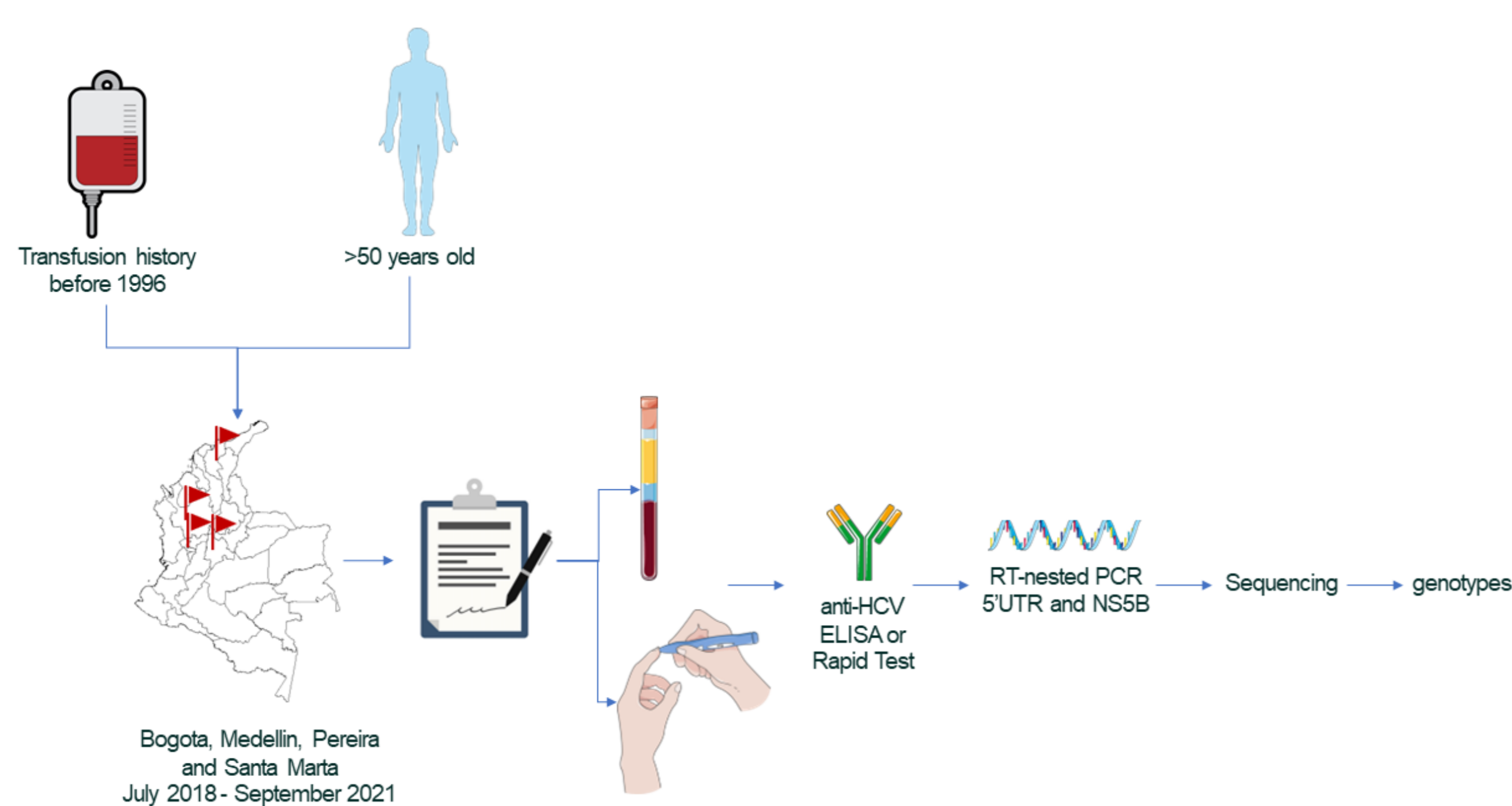
The main objective of the study is to determine the prevalence of HCV infection in individuals with history of blood transfusion before 1996 and in people >50 years old in 4 cities in Colombia. Furthermore, to identify cases of Hepatitis C and therefore candidates for DAA treatment.

The frequency of anti-HCV using the rapid test was 0.32%, (1/306) in > 50 years old individuals; this population declared antecedents before 1996 such as hospitalization 19.6%, surgery 18.3%, and transfusion 7.8%.

Table 1. Characteristics of individuals with history of transfusion before 1996 and markers of HCV infection

City	Age	Gender	Reason for transfusion	Year of transfusion	anti-HCV	HCV Genome	Genotype Subgenotype
Medellín	66	F	Ectopic pregnancy	1986	+	+	1b
Medellín	63	M	No data	1968	+	+	1b
Medellín	48	F	Arteriovenous fistula	1986	+	-	NA
Pereira	53	F	Surgery	1990	+	-	NA
Pereira	62	F	Postpartum hemorrhage	1986	+	-	NA
Pereira	67	M	Car accident	1970	+	+	4d
Santa Marta	59	F	Postpartum hemorrhage	1986	+	+	1b

METHODS



RESULTS

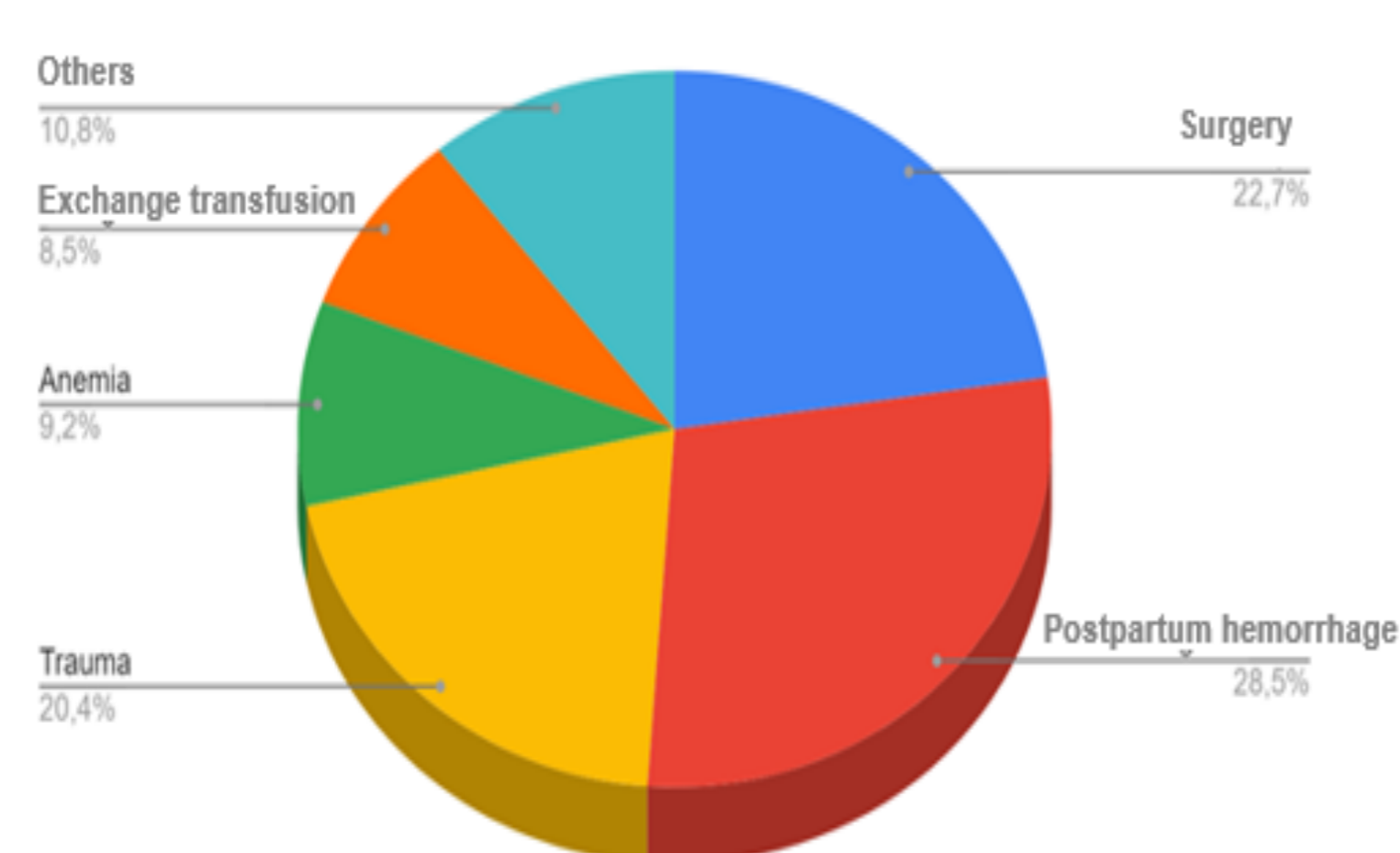


Fig 1. Reasons for transfusion of the study population (n=260)

A total of 260 individuals with a transfusion history were recruited (Fig 1). Anti-HCV antibodies were detected in 7 samples (2.69%) and the viral genome was amplified in 4/7 samples. HCV genotypes 1 and 4 were characterized (Table 1).

On the other hand, 306 rapid tests have been carried out on population > 50 years old in Bogotá (n=235) and the Aburra Valley Metropolitan area (n=71).

CONCLUSION

The seroprevalence of anti-HCV in individuals with history of blood transfusion (2.69%) was lower than expected considering the results of two previous studies carried out on population with this risk factor in Colombia. Among > 50 years old population the prevalence of HCV by rapid test was 0.32%. The HCV genotypes 1 and 4 (subgenotypes 1b and 4d) were characterized in individuals with antecedents of blood transfusion.

The disease burden modeling is being carried out based on the results of the study.

ACKNOWLEDGMENT

