

RETINA
2024
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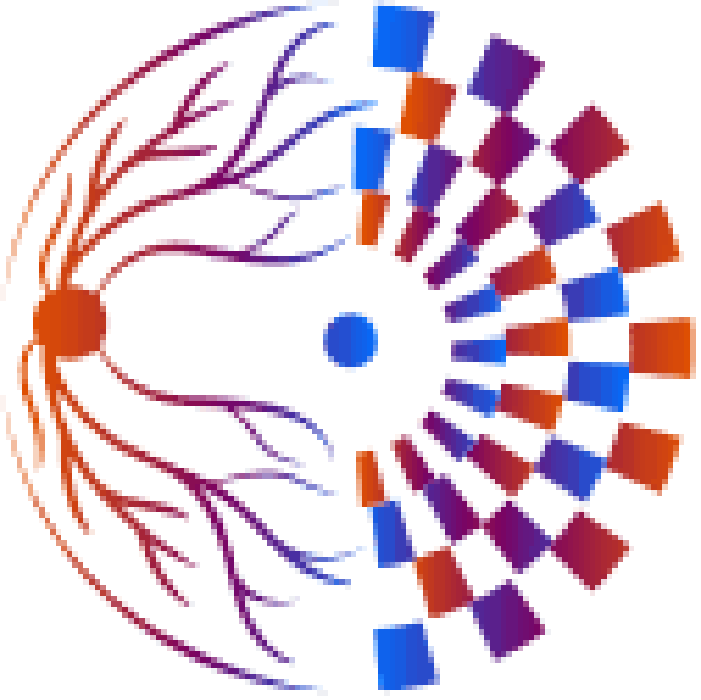


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Universidade Estadual de Montes Claros

PNEUMATIC RETINOPEXY WITH ATMOSPHERIC AIR
ASSOCIATED WITH STEAMROLLER MANEUVER AS
AN ALTERNATIVE TO THE USE OF SF6 AND C3F8
GASES

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INTRODUCTION

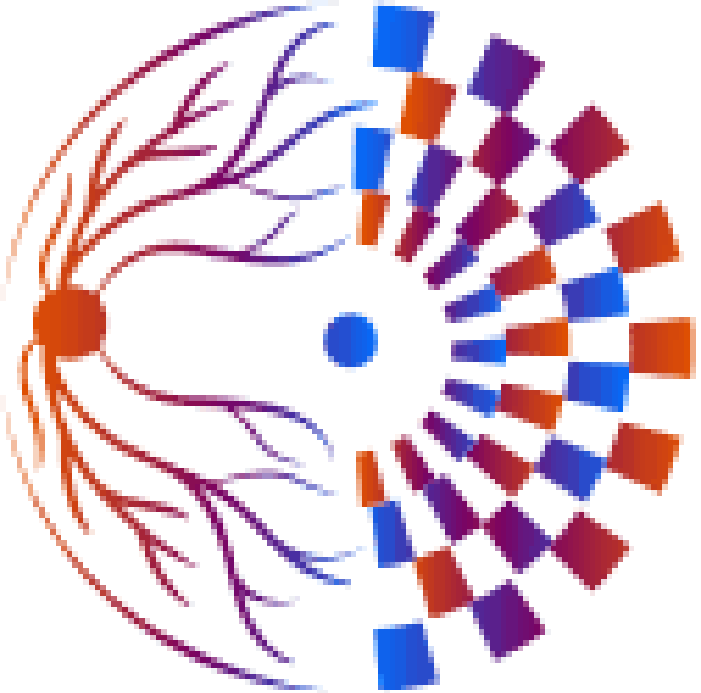
THE AUTHORS EVALUATED 15 EYES THAT UNDERWENT PNEUMATIC RETINOPEXY WITH ATMOSPHERIC AIR PERFORMED IN AN OUTPATIENT SETTING AT AN OPHTHALMOLOGICAL CLINIC IN THE INTERIOR OF THE STATE OF MINAS GERAIS. THIS TECHNIQUE WAS REQUIRED DUE TO THE LACK OF RESOURCES TO PERFORM PNEUMATIC RETINOPEXY USING GASES.

**STEAM ROLLER MANEUVER IN PNEUMATIC RETINOPEXY. DOES IT
WORK?**

BEATRIZ J PÉREZ-ARAGÓN, ET AL.
CIRURGIA Y CIRURGIANOS. 2019

**AIR VS PERFLUOROPROPANE GAS IN PNEUMATIC RETINOPEXY: A
RANDOMIZED NONINFERIORITY TRIAL**

SUTHASINEE SINAWAT, ET AL.
ARCH OPHTHALMOL 2010



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MATERIALS AND METHODS

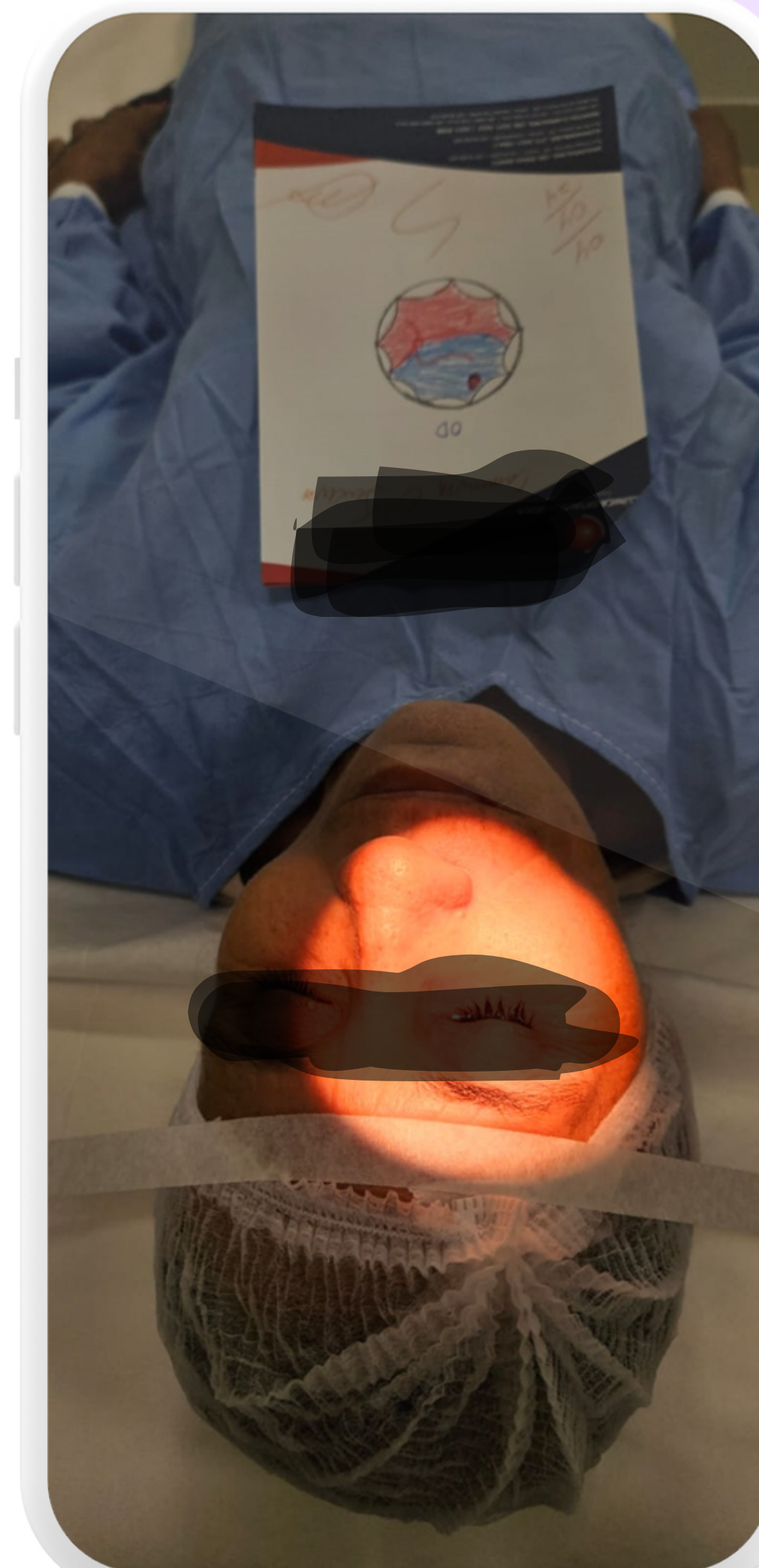
THE 15 PATIENTS WERE SEEN AT THE OUTPATIENT CLINIC OF CLÍNICA OFTALMOLÓGICA UNIMONTES, IN THE CITY OF JANUÁRIA-MG, WITH RHEGMATOGENOUS RETINAL DETACHMENT WITH A SINGLE LESION IN THE UPPER QUADRANT BETWEEN 10 AM AND 2 AM, WITHOUT SIGNS OF PVR AND ALL WITH THE MACULA STILL APPLIED. 0.5ML OF ATMOSPHERIC AIR WAS INJECTED, ASPIRATED WITH AN INSULIN SYRINGE ATTACHED TO A 30-GAUGE NEEDLE AND A STEAM ROLLER MANEUVER WAS PERFORMED. PATIENTS WERE INSTRUCTED ON THE CORRECT POSITIONING OF THE HEAD ACCORDING TO THE LOCATION OF THE LESION AND REFERRED TO THE SURGICAL RETINA SERVICE AT HOSPITAL UNIVERSITÁRIO UNIMONTES.



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RESULTS

THE PATIENTS WERE EVALUATED WITHIN 24 HOURS AFTER THE APPLICATION OF ATMOSPHERIC AIR AND ALL SHOWED COMPLETE REGRESSION OF THE RETINAL DETACHMENT, WITH 360° LASER PHOTOCOAGULATION BEING PERFORMED ON THE ORIGINAL TEAR. THE PATIENTS WERE FOLLOWED UP ON AN OUTPATIENT BASIS WITHOUT RECURRENCE OF RETINAL DETACHMENT



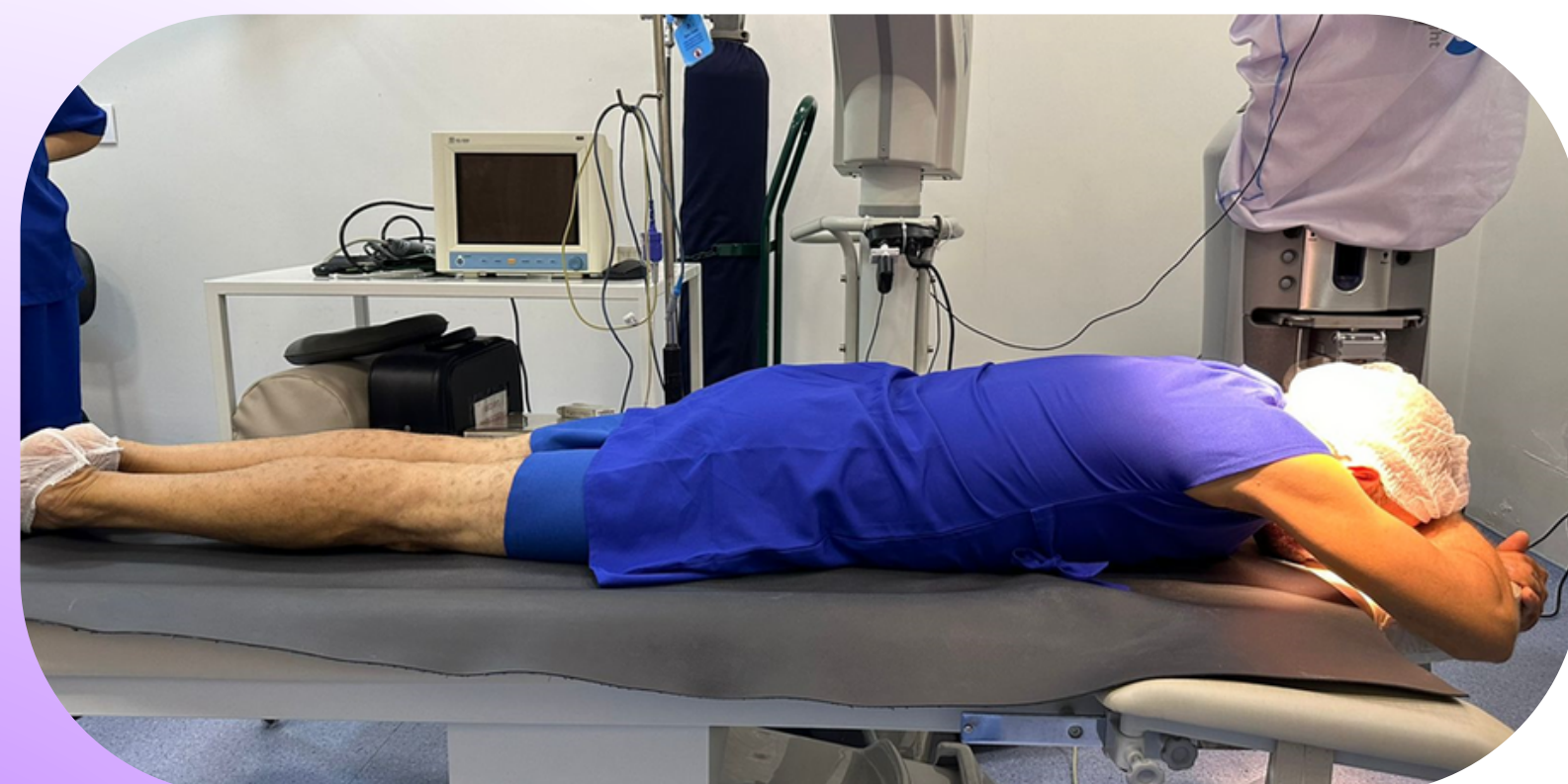
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DISCUSSION AND CONCLUSIONS

IN REGIONS WITH SCARCE RESOURCES, ATMOSPHERIC AIR CAN REPLACE SF6 AND C3F8 GASES IN CAREFULLY SELECTED CASES AND FOLLOWED BY THE STEAM ROLLER MANEUVER, WHICH CAUSES THE FLUID TO DRAIN THROUGH THE PERIPHERAL RUPTURE OF THE RETINA, MINIMIZING THE AMOUNT OF FLUID THAT NEEDS TO BE ABSORBED. . SINCE ATMOSPHERIC AIR DOES NOT HAVE THE SURFACE TENSION OF GASES AND ITS RESIDENCE TIME IN THE VITREOUS CAVITY IS 48 TO 72 HOURS. HOWEVER, THIS TIME MAY BE SUFFICIENT TO CAUSE REAPPLICATION OF THE DETACHED SUPERIOR RETINA IN ACUTE CASES, WITH SMALL OPENING TEARS (LESS THAN 1 CLOCK HOUR), BETWEEN 10 AM AND 2 AM AND WITHOUT PVR. THIS WORK SHOWS THAT ATMOSPHERIC AIR ASSOCIATED WITH ROLLER COMPRESSION MANEUVERS CAN BE A VALUABLE AID TO RETINAL SURGEONS WHO DO NOT HAVE THE APPROPRIATE THERAPEUTIC RESOURCES FOR THEIR PRACTICE.



SECOND POSITION



FIRST POSITION



HEAD'S POSITION