

Plaque Meningioma, Sellar Region, Treated with QIAPI 1[®], Case Report

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Abstract

Meningiomas, the most common intracranial tumor, though mostly benign, can be recurrent and fatal. Traditionally they have been understudied compared to other central nervous system (CNS) tumors. Lastly, there has been renewed interest in uncovering the molecular topography of these tumors, trying to identify key driver alterations contributing to meningioma development and progression.

Most of these tumors are benign and can be treated with surgery and/or radiotherapy (RT). A significant proportion of meningiomas (20–30%) are clinically aggressive and have a proclivity to recur with significant morbidity and even mortality. Aggressive subtypes often have a 5-year progression free survival (PFS) probability of less than 50%. There is therefore a significant need to develop more treatments for this population, which is bound to continue increasing in size as our population ages.

The role of oxygen in disorderly growing cells has been considered somewhat vague. Since 1924, Otto Warburg reports that most cancer cells produce large amounts of lactate. Subsequent studies showed that mitochondrial function is not impaired in most cancer cells. But with the observation that human eukaryotic cells have molecules capable of dissociating water molecules located inside the same cell, as in plants, then the paradox mentioned above begins to be resolved, because then it turns out that our body does not take oxygen from the air that surrounds it, but produces it by itself, and this inside each cell. And the oxygen that is produced intracellularly is for the cell that produces it to use almost completely.

And when oxygen levels at the intracellular level are inadequate, the highly complex but strictly regulated metabolism's cells are affected in an unpredictable and generalized way, as evidenced by genomic instability, which is one of the characteristics of the cancer cell.

Therefore, we can infer that the primary origin of the biochemical alterations that lead to uncontrolled cell proliferation is the loss of balance between the generation of oxygen at the intracellular level, from the dissociation of the water molecules contained inside the same cell, and the oxygen (and hydrogen) requirements inside it. And by restoring this balance, which is essential for the origin of life and the normal functioning of cells, tissues, organs, and systems, it is possible for cells to regain their normal and quite complex metabolic activity.

The report of this case of plaque meningioma that improves substantially with the administration of QIAPI 1[™], opens new and promising possibilities for the study and treatment of patients affected by abnormal cell proliferation.

Keywords

Brain tumor, Meningioma, Patient prognosis prediction, Meningioma subtypes, Recurrent.

INTRODUCTION

Meningiomas are the most common primary intracranial tumors in humans and are usually benign. However, some are malignant, rapidly recur after multimodal treatment with surgery and radiotherapy, and can ultimately be fatal [1]. Some of the underlying biology of these tumors come from neurofibromatosis type 2 with germline loss of one copy of NF2, resulting in the formation of multiple meningiomas [2]. Currently available therapeutic options for

patients with aggressive meningiomas are limited to radiation and multiple surgeries, therefore a better understanding of the underlying biology of aggressive meningiomas is needed. It is likely that rapid recurrence and aggressive behavior of some meningiomas reflects the complex underlying biology of these tumors, which is in turn largely reflected by its overall gene expression pattern. The most common aggressive tumors of these showed high proliferation rates and RNA expression resembling muscle development.



Aggressive tumors are regionally concentrated. Consistent with what is known, most of the map comprised of older patients that were predominantly female (median age of 58 years and 66% female) [3]. There are meningioma subtypes with distinct time to recurrence. Meningioma subtypes frequently show expression patterns of developmental cell types [4].

The epochal developments in the treatment of meningioma-microsurgery, skull base techniques, and radiation therapy-will be appended to include the rational application of targeted and immune therapeutics, previously ill-fitting concepts for a tumor that has traditionally been regarded as a surgical disease [5].

Meningiomas are the most common primary brain tumor mostly in adults. Traditionally they have been understudied compared to other central nervous system (CNS) tumors. However, over the last decade, there has been renewed interest in uncovering the molecular topography of these tumors, with landmark studies identifying key driver alterations contributing to meningioma development and progression [6].

A significant proportion of meningiomas (20–30%) are clinically aggressive and have a proclivity to recur with important morbidity and even mortality. While there is no accepted definition of “poor outcome” in meningioma, aggressive subtypes often have a 5-year progression free survival (PFS) probability less than 50% [7]. Cytogenetic studies have shown meningiomas to be characterized by complex patterns of diverse chromosomal losses and gains that vary with biological aggressiveness [8], which means a generalized failure due to some kind of damage around very primitive, very fundamental mechanism of cell functioning, such as oxygen (and hydrogen) intracellular levels.

Currently, the only standard care therapies for meningiomas are surgery and radio therapy (RT) [9]. Patients with meningiomas that are refractory to these modalities contribute to most of the morbidity and mortality of these tumors.

The unsuspected capacity of human eukaryotic cells to dissociate water molecules

Until now, the prevailing dogma has been that chlorophyll is the only biomolecule capable of transforming the power of sunlight into chemical energy by dissociating the water molecules contained in plant cells. But our meticulous clinical study of the tissues of the retina, optic nerve and choroid, made it possible to identify in 2002, after an observational analytical study that began in 1990 and ended in 2002, and included the ophthalmological records of almost 6000 patients, and whose working hypothesis is about the tiny blood vessels that enter and leave the optic nerve and its possible correlation with the three main causes of blindness in the world (age related macular degeneration, diabetic retinopathy and glaucoma) that it was possible to detect the hitherto unsuspected ability of human eukaryotic cells to transform the power of light into chemical energy, by dissociating the water molecules that these cells contain inside [10]. And our observation happens about 250 years after the discovery of oxygen [11].

Supposedly, Oxygen is instrumental for the metabolism of many organisms. Oxygen acts as the terminal electron acceptor in humans, for example, where four electrons are used to create water, which is then lost through the skin or breath. Without the removal of electrons by oxygen at the end of the electron transport chain, the mitochondria would be unable to create an electrochemical potential across the inner mitochondrial membrane. However, this metabolic pathway is

theoretical entirely [12].

Lack of full reduction of oxygen leads to the production of oxygen-free radicals, notably, the superoxide oxide anion (O_2^-) [13]. Such radical production leads to a cascade of oxygen-based compounds, such as hydrogen peroxide (H_2O_2) and the hydroxyl radical ($-OH$). Such ROS led to the idea that their presence, and indeed over accumulation in cells, leads to the ageing process. And effectively it is just an idea, like Peter Mitchell's Theory. These wrong ideas still has traction today and are widely researched [14].

Superoxide anions are molecular oxygen with an extra electron, but this has no pair in the outer shell, so that this is a free radical (O_2^-). Once such oxygen-based compounds are generated, there is the potential to produce further downstream oxygen-rich compounds collectively known as reactive oxygen species (ROS) and includes the hydroxyl radical ($-OH$). Other forms of oxygen include singlet oxygen and the superoxide anion, the latter also known historically as hyperoxide. Singlet oxygen is an excited form of molecular oxygen ($O_2(a^1\Delta_g)$) and has been known for approximately ninety years [15].

The idea of oxygen being involved in biological systems, of course, has a much longer history, spanning back to work of people such as Lavoisier, Joseph Priestley, and Carl Wilhelm Scheele (1742–1786). However, Lavoisier with his colleague Laplace made one major error when they stated that the combustion (oxidation) took place in the lung itself. In fact, it is remarkable that the identification of where the actual energy metabolism occurred proved to be extremely elusive, being a central problem in physiology for much of the 19th century. It was only in the 1870s that Eduard Pflüger (1829–1910) and his coworkers showed conclusively that metabolism takes place in peripheral tissues and that the blood simply transports the respiratory gases [16].

Since 1907, it was detected that Oxygen caused the disappearance of lactate in stimulated muscles. The lack of oxygen in biological systems is often referred to as hypoxia. This can be somewhat misleading term. Atmospheric oxygen is 21%, as stated above, but not many cells in a body will be exposed to this concentration of oxygen. There are many conditions under which the oxygen tension accessible to cells is driven even lower, including during wounding and cancer, which would be true hypoxia.

Hypoxia (decrease in oxygen), by essence variable in time and in localization in the body, in contrast with anoxia (absence of oxygen). How cells survive low oxygen, and recover from such conditions, is important to understand. Reperfusion injury, where oxygen supposedly is reintroduced through bloodstream to tissues and cells, can lead to unexpected damage partly explained through the generation of ROS [17]. Thereby, the role of low-oxygen tension in cancer is also important to understand [18]. Its role in respiration and cell signaling are vital for the correct functioning of the cell, but the absence of oxygen is also important to consider, especially in tumors.

Then, our observation that human eukaryotic cells have several molecules capable of dissociating the water molecules contained inside themselves, opens a watershed in medicine, because then it turns out that our body does not take oxygen from the air that surrounds it, but generates it inside each cell of our body. as happens in plants, because they also do not take oxygen from the environment that surrounds them, but obtain it from the water contained inside the cells that make them up.

CASE REPORT

Patient's name: VMR. **DATE OF BIRTH:** 02/February/1970 **TODAY'S DATE:** 06/June/18 **SEX:** Female.

Phototype IV, (Fitzpatrick): female patient, with date of birth February 1970, she comes to the clinic today ((06/06/2018) with a diagnosis of plaque meningioma, on the head, near the pituitary gland.

Physical examination

Female patient, with a freely chosen attitude, capable of walking without help. With SpO2 %: 94 %, Heartbeat: 65 per minute, and Objective refraction: +/-.

Ophthalmological examination: The position of the eyelids as well as ocular motility within normal limits. Isochoric pupils, central position, with direct reflex to light and motor-motor present.

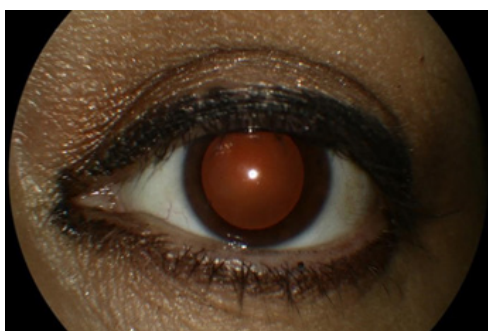


Figure 1: The anterior segment of the left eye is normal, the pupil with pharmacological mydriasis.

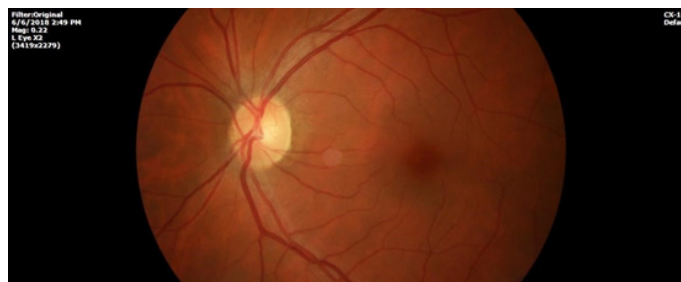


Figure 2: The structures of the back of the left eyeball, with no apparent pathological alterations.

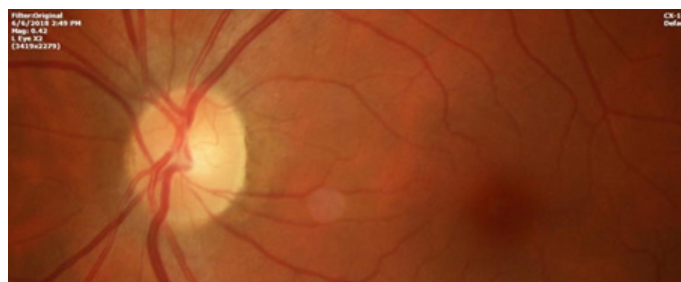


Figure 3: The magnification of the optic nerve, illuminated with polychromatic light, shows normal coloration and excavation, without hemorrhages or exudates.

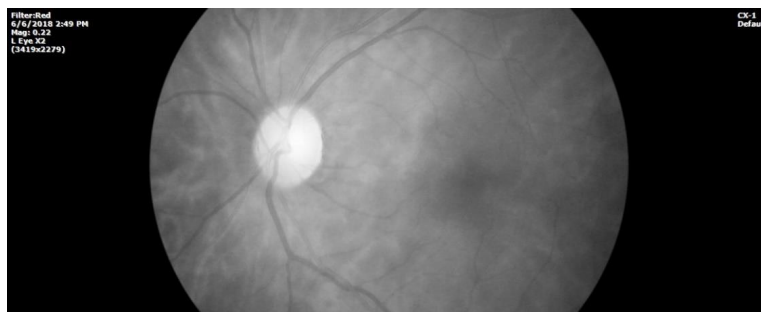


Figure 4: The choroidal circulation, highlighted by monochromatic light, does not show changes compatible with pathology.

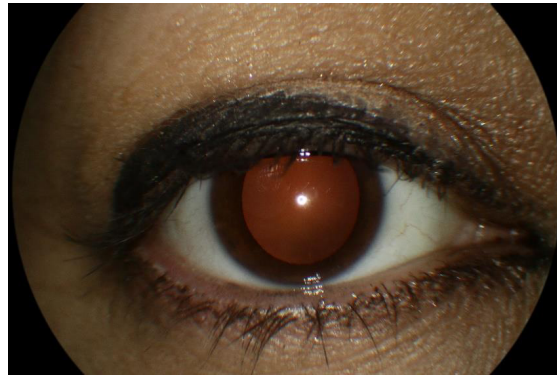
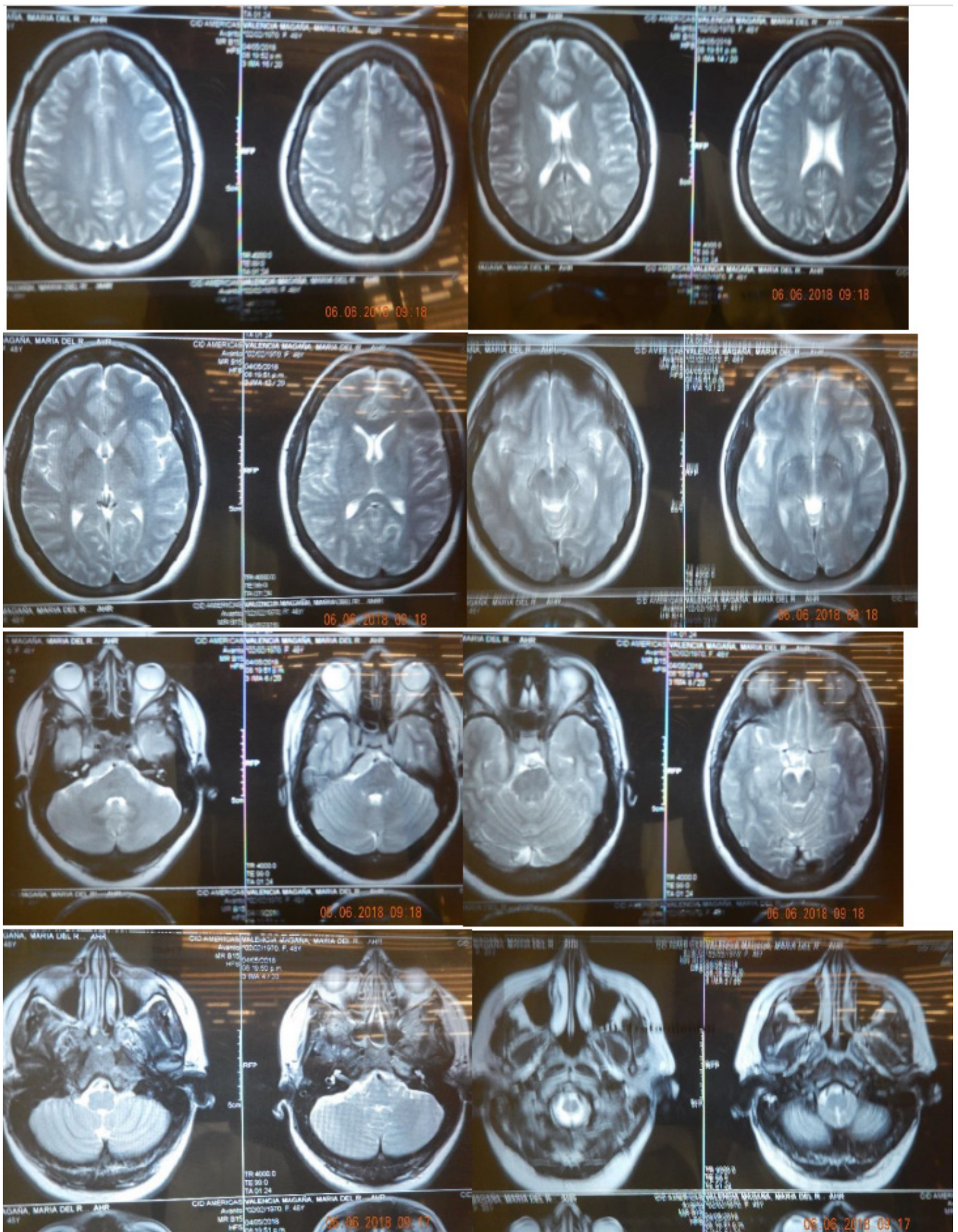


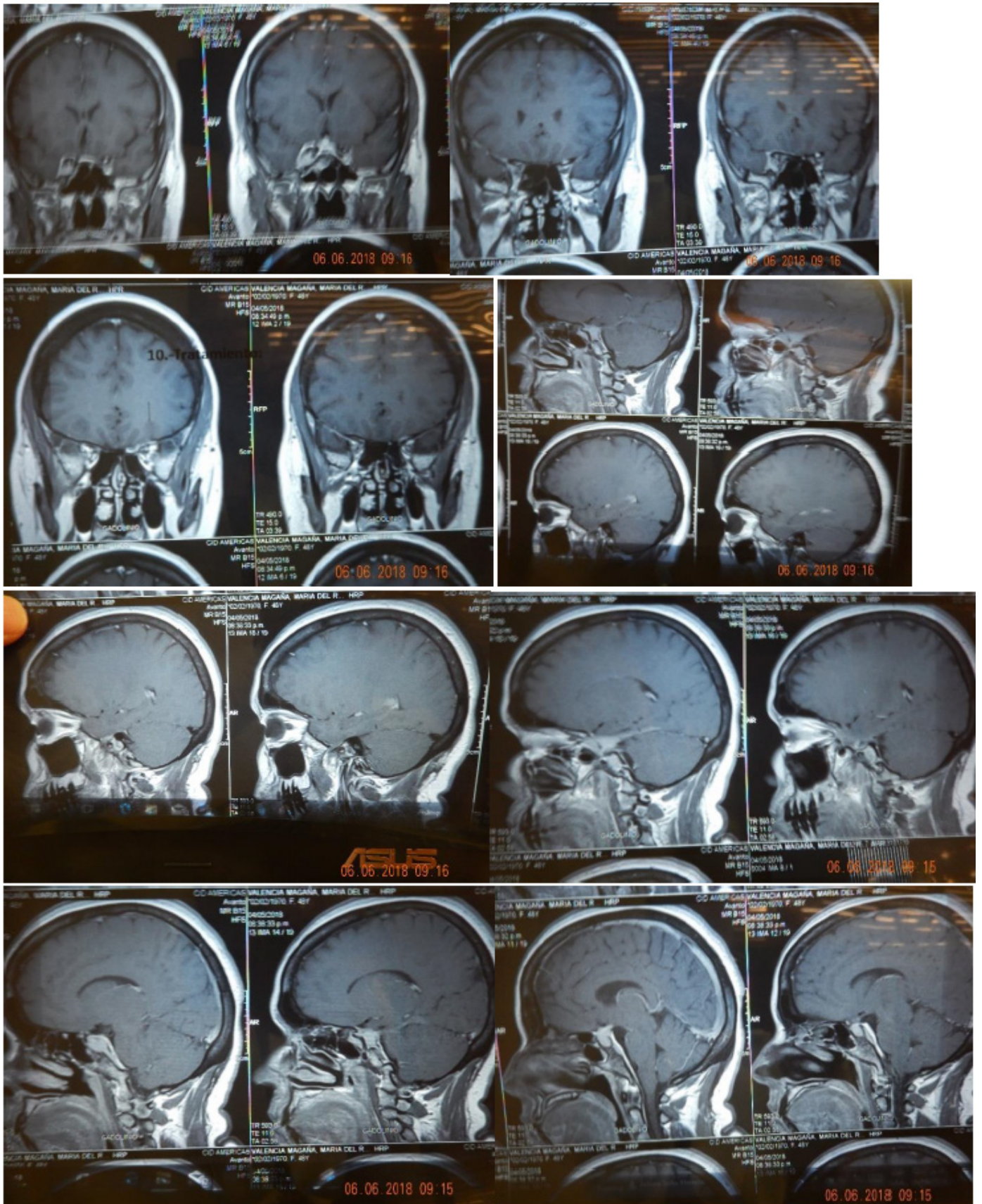
Figure 5: The anterior segment of the right eye does not show pathological alterations, the pupil with pharmacological mydriasis.

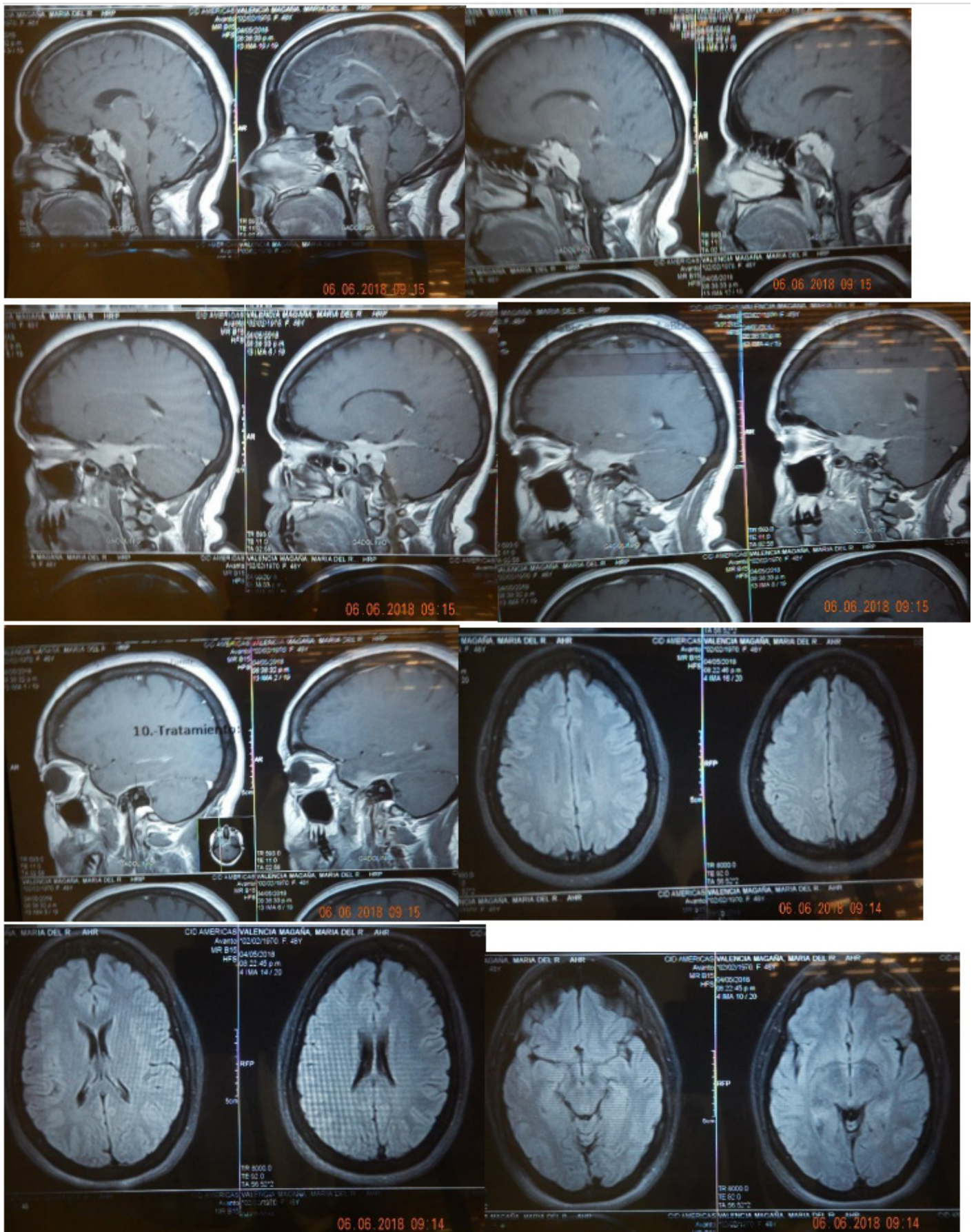


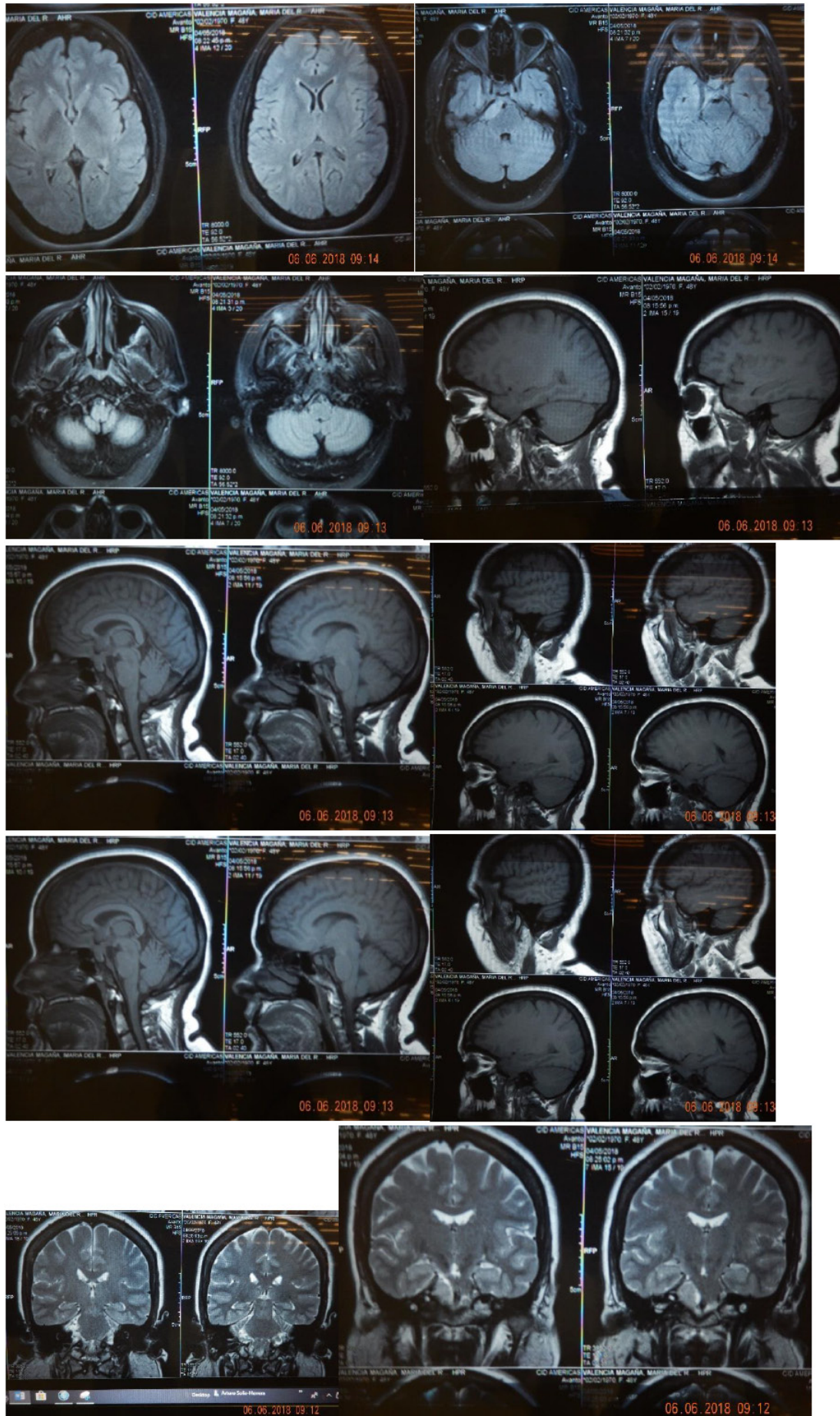
Figure 6: The right optic nerve, without hemorrhages or exudates.

In the MRI studies carried out in the city where she lives, dated 04/05/2018, the following images are retrieved:









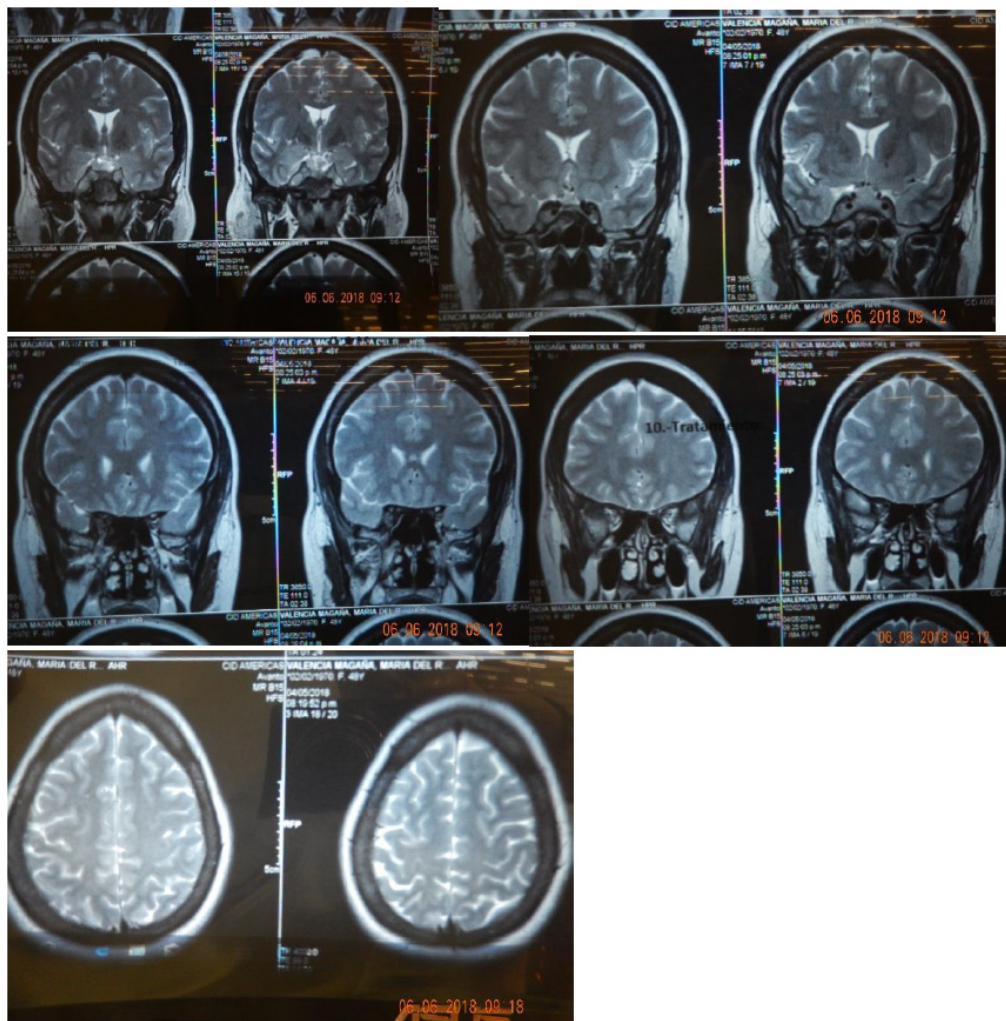


Figure 7: These retrieved images were taken from the MRI study with data 04/05/2018.

IRM DE CRANEO Y REGIÓN SELAR
Gadolinio IV
 04/05/2018

PACIENTE: [Redacted]
 MÉDICO REFERENTE: A Quien Corresponda
 INSTITUCIÓN: Particular

Técnica: Imágenes multiplanares, múltiples secuencias. RM 1.5 Teslas.

HALLAZGOS:

- El hallazgo principal corresponde con proceso ocupativo centrado hacia la región selar, el cual es isoíntenso a las meninges, y al seno cavernoso, y muestra realce ávido en las secuencias adquiridas tras la administración de gadolinio, siendo este realce muy similar al del tejido meningeo visible en el estudio, mostrando esta lesión datos de probable extensión hacia la cisterna supraselar, así como hacia la cisterna prepontina en el lado derecho, así como parte del ángulo pontocerebeloso ipsilateral, extensión hacia los márgenes del tentorio en el lado derecho, la fosa temporal ipsilateral, los senos cavernosos rodeando a las arterias carótidas internas así como afectación de la lámina cuadrilátera, y probable afectación del seno estenoideo en el lado derecho, y que mide aproximadamente en extensión 45 mm x 25 mm x 41 mm en sus ejes rostrocaudal, dorsoventral y laterolateral, respectivamente, y que pudiera corresponder con meningioma selar. Se observa compresión del quiasma por esta lesión.
- Parénquima cerebral simétrica, con adecuada intensidad. Adecuada morfología e intensidad de los ganglios basales.
- Espacio subaracnoideo de la convexidad y sistemas de la base muestra adecuada amplitud e intensidad.
- Sistema ventricular conserva su talla y patrón de intensidad normales.
- A nivel infratentorial, adecuada morfología, localización e intensidad de hemisferios cerebelosos y tallo encefálico.
- En las regiones orbitarias, no identifico proceso ocupativo a nivel intra o extraconal.
- No identifico proceso ocupativo ni áreas de señal anormal a nivel de la región pineal.
- Unión cráneo-cervical sin alteraciones. Integridad de la articulación atlanto-odontoides.

COMENTARIO FINAL:

Proceso ocupativo centrado hacia la región selar, en mi opinión, plantea como posibilidad diagnóstica, meningioma, con datos de extensión hacia región [Redacted]
 Correlacionar los hallazgos descritos con los datos clínicos

Figure 8: The interpretation of the MRI of the skull and Sellar region, with contrast medium, supports the following findings: “occupational process centered towards the Sellar region, isointense to the meninges and cavernous sinus, showing avid enhancement with gadolinium, similar to the visible meningeal tissue, showing data of extension towards the suprasellar cistern and prepontine on the right side, and partly to the ipsilateral pontino-cerebolous angle, extending towards the margins of the tentorium on the right side, the ipsilateral temporal fossa, the cavernous sinuses, and surrounding the internal carotid arteries, affecting the quadrigeminal lamina, and possible involvement of the right sphenoid sinus. Measuring approximately: 45 mm x 25 mm x 41 mm in its rostro caudal, dorsoventral, and later lateral axes, corresponding to parasellar meningioma, and which is compressing the optic chiasm”.

Once the patient and her relatives were explained the therapeutic approach that we used, based on the unsuspected ability of human eukaryotic cells to dissociate the water molecules contained inside each cell that makes us up, by means of various molecules, also of intracellular location, and whose precursor is protoporphyrin IX; the informed consent was signed and treatment with QIAP1®, sublingual drops was initiated; at the dose of three drops every hour, for as long as the patient was awake.

She was advised to maintain consistent treatment until she went for a new check-up in September 2018.

Second consultation

The patient went for a new examination, on 09/01/2028, reporting an improvement in the symptoms that afflicted her when she came for the first time.

He felt good. Gastritis and colitis are very good. She already eats very well. She thyroid jerked up. Blood analysis and X ray studies were performed at the Government Social Security System (IMSS). After the last study she did, then she was examined by an oncologist.

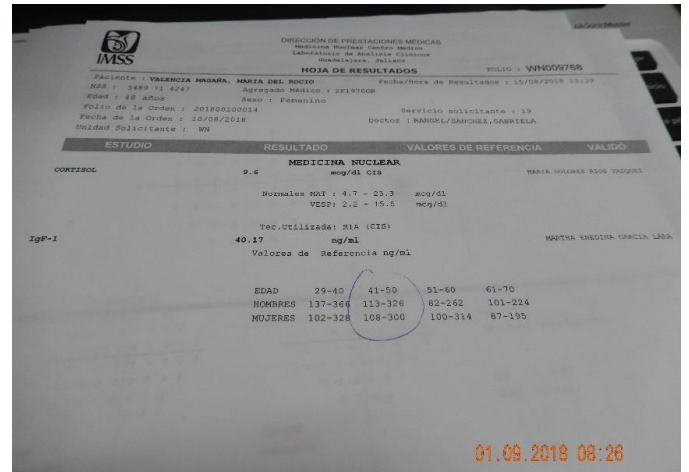


Figure 11: The plasma cortisol results were 9.6 µg/dL. The IgF-1 values were 40.17 ng/dL.

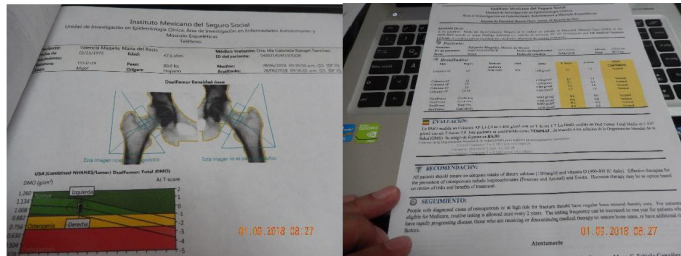


Figure 9: Bone densitometry studies within normal limits.

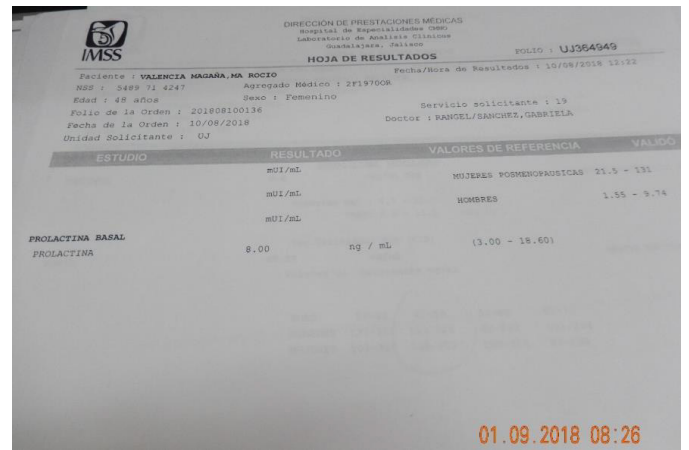


Figure 12: Prolactin values were 8 ng/mL.

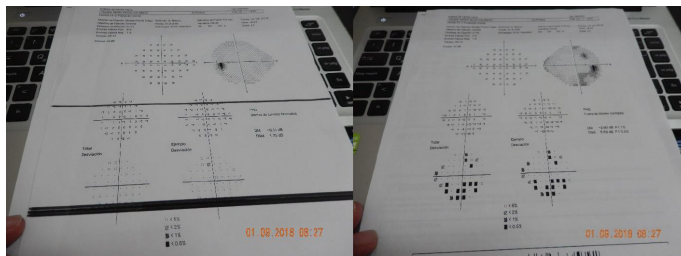


Figure 10: In the study of visual fields, only a relative inferior scotoma is observed, in the lower temporal quadrant of the right eye.

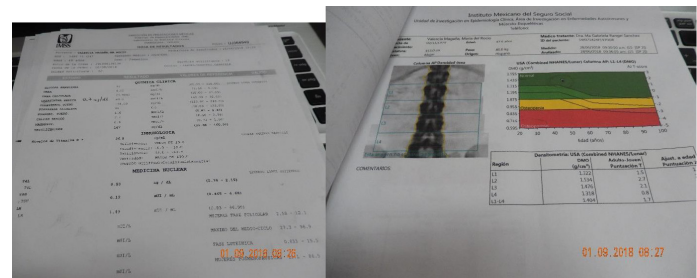


Figure 13: Results of clinical chemistry analysis, immunology, determination of TSH, T4L, and luteinizing hormone. On the right, the bone densitometry of the spine results.

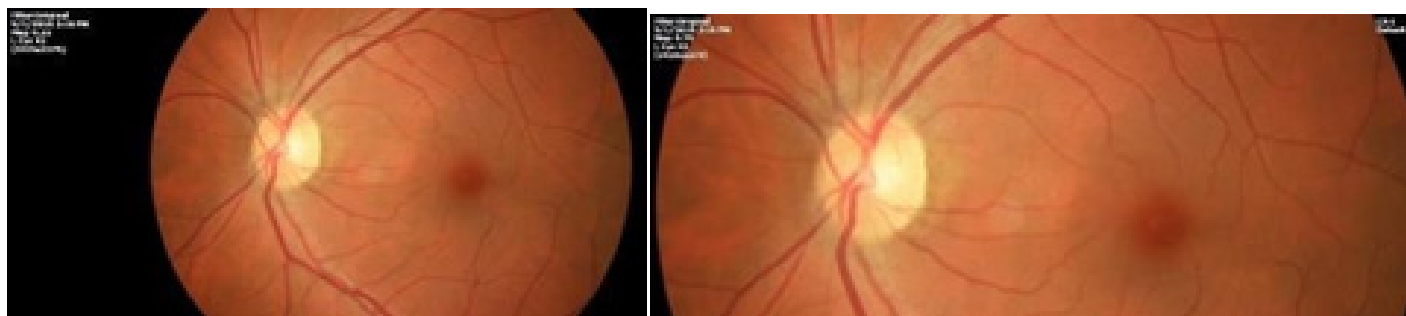


Figure 14: The findings of the fundus, on the left side, do not show relevant data.

The clinical examination on 01/09/2018, yields the following results:
 SpO2 %: 95 %
 Heartbeat: 59 per minute
 Objective refraction: +/-

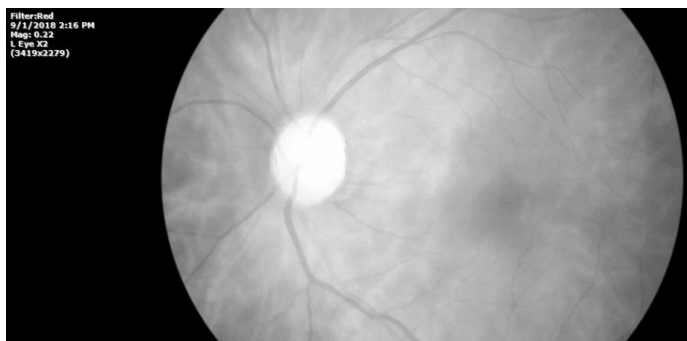


Figure 15: The choroidal circulation of the left eye does not show alterations that suggest any specific pathology.

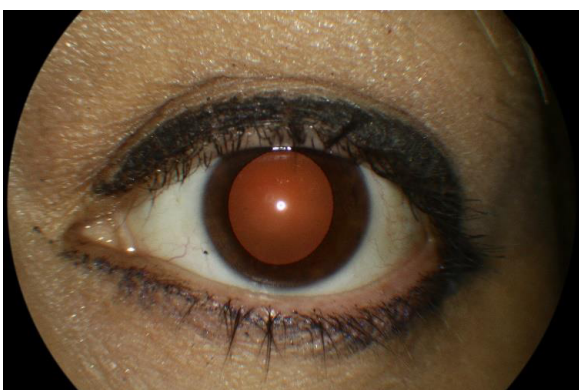


Figure 16: Examination of the anterior segment and eyelids of the left eye, within normal limits.

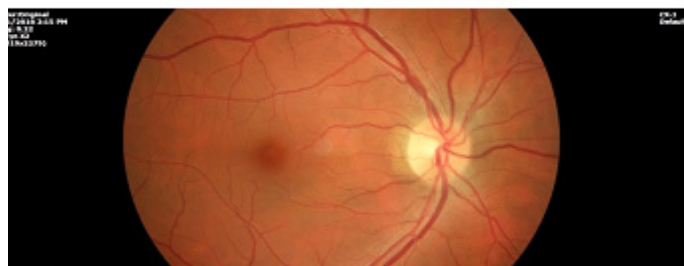
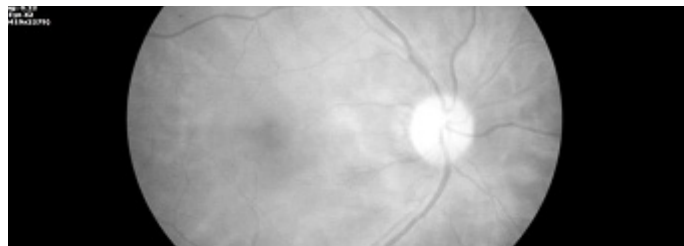


Figure 18: At greater magnification, pathological data are not detected either (Right eye).

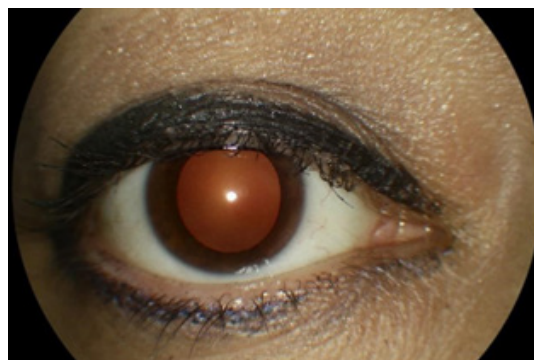


Figure 19: Examination of the anterior segment as well as the eyelids on the right side, with no pathological data, except for drug-induced mydriasis for the examination of the ocular fundus.



Figure 17: Examination of the anatomical components of the right ocular fundus, without exudates or hemorrhages.

Some skin rashes in vaginal areas, and other zones. Practitioners in Guadalajara, Mexico; told her it wasn't an infection. The same treatment (QIAP1 1°) was continued, and he was scheduled for a check-up in 5 weeks.

Third consultation (11/03/2018)

The patient feels her limbs and head pulsing at night. Some eyelid edema. At night his veins jump. Balance problems. If she gets up quickly, she gets dizzy. When walking with a mild headache. At night I pump, his heart beats and he is anxious.

The following data were obtained during the physical examination on 11/03/2018.

- SpO2 %: 97 %
- Heartbeat: 66 per minute.
- Objective refraction: +/-



Figure 20: Examination of the optic nerve, retina and choroid of the left eye, without relevant data.

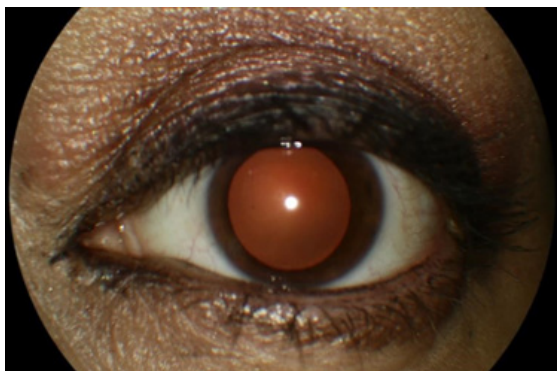


Figure 21: The anterior segment and the eyelids of the left eye, without pathological data. Mydriasis is drug-based.



Figure 22: Examination of the fundus of the right eye, within normal limits.

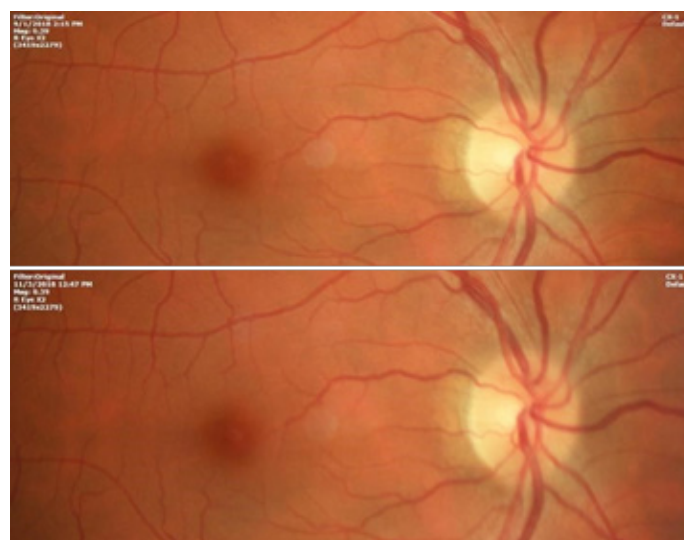


Figure 23: Even at higher magnification, no edema or bleeding is detected in the optic nerve on the right side.

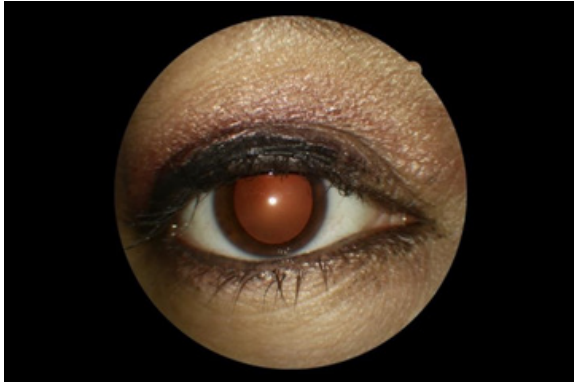


Figure 24: The anterior segment and the eyelids of the right eye, without pathological data.

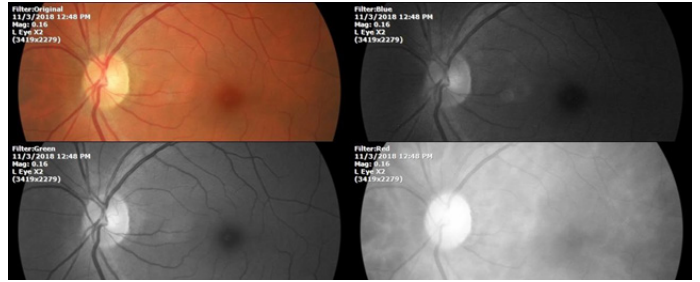


Figure 25: The left optic nerve, despite magnification, is within normal limits.

Treatment based on sublingual QIAP1 was continued at the dose of sublingual QIAP1[®], every hour. Summoning the patient for a new check-up in 3 months.

02/23/2019, fourth consultation

Episodes of cold, hot flashes, dry mucous membranes. They did the second MRI. New blood tests were evaluated for hormones.

Equipo: COULTER Dxi 800

ESTIMULADO	RESULTADO
HORMONA ESTIMUL. DE LA TIROIDES (TSH)	+ 7.68
PROLACTINA	+ 36.08
PROGESTERONA	0.27
HORMONA LUTEINIZANTE (LH)	1.27
HORMONA FOLICULO ESTIMULANTE (FSH)	3.69
T3 TRIYODOTIRONINA TOTAL	0.92
T4 TIROXINA TOTAL	6.75
T3 CAPTACION	37.5
INDICE DE TIROXINA LIBRE	2.53

ND Núcleo de Diagnóstico

FECHA DE IMPRESIÓN: 2019-02-20

ESTIMULADO	RESULTADO	UNIDAD	VALORES DE REFERENCIA
HORMONA ESTIMUL. DE LA TIROIDES (TSH)	7.68	mIU/mL	0.35 - 4.94
PROLACTINA	36.08	ng/mL	4.79 - 23.30
PROGESTERONA	0.27	ng/dL	5.0 - 25.0
HORMONA LUTEINIZANTE (LH)	1.27	mIU/mL	2.5 - 12.5
HORMONA FOLICULO ESTIMULANTE (FSH)	3.69	mIU/mL	0.87 - 1.78
T3 TRIYODOTIRONINA TOTAL	0.92	ng/dL	4.60 - 12.00
T4 TIROXINA TOTAL	6.75	%	22.30 - 48.30
T3 CAPTACION	37.5	%	1.12 - 4.62
INDICE DE TIROXINA LIBRE	2.53	pg/mL	2.00 - 4.40
T3 TRIYODOTIRONINA LIBRE	0.92	ng/dL	0.70 - 1.48
T4 TIROXINA LIBRE	6.75	ng/dL	

Web CUP: K085120311

EDAD: 48 AÑOS

SEXO: FEMENINO

UNIDAD	VALORES DE REFERENCIA
mcU/mL	0.35 - 4.94
ng/mL	4.79 - 23.30
ug/dL	5.0 - 25.0
ng/mL	0.87 - 1.78
mcg/dL	4.60 - 12.00
%	22.30 - 48.30
	1.12 - 4.62
pg/mL	2.00 - 4.40
ng/dL	0.70 - 1.48

FECHA: 2019-02-20

FECHA DE IMPRESIÓN: 2019-02-20

Equipo: COULTER Dxi 800

ESTIMULADO	RESULTADO
HORMONA ESTIMUL. DE LA TIROIDES (TSH)	+ 7.67
PROLACTINA	+ 36.93
CORTISOL	5.88
T3 TRIYODOTIRONINA TOTAL	+ 0.80
T4 TIROXINA TOTAL	6.23
T3 CAPTACION	41.1
INDICE DE TIROXINA LIBRE	4.11
T3 TRIYODOTIRONINA LIBRE	3.12
T4 TIROXINA LIBRE	+ 0.59

ESTUDIO	RESULTADO	VALORES DE REFERENCIA
TRUCO CEREBRO	237	mg/dL (95.89 - 156.05)
ELECTROLITOS SERVICIOS PARA CLINICA		
NaCl	138.00	mEq/L (136 - 146)
KCl	4.5	mEq/L (3.6 - 5.0)
Ca	9.7	mg/dL (8.8 - 10.4)
ANALISIS DE URINA		
Proteínas	100 mg/dL	(NEGATIVO)
Glucosa	100 mg/dL	(NEGATIVO)
Cetona	NEGATIVO	(NEGATIVO)
Bilirrubinas	NEGATIVO	(NEGATIVO)
Sangre	IND. INTACTOS	Apr. anial
Urobilogeno	0.2 mg/dL	(0.1 - 1.0)
Azúcares	NEGATIVO	(NEGATIVO)
Leucocitos	NEGATIVO	(NEGATIVO)
SEDIMENTO		
Leucocitos	2 ICPA	POR CAMPO
Eritrocitos	5 ICPA	(NEGATIVO)
Bacterias	ESCASAS	
Col. Epiteliales	ESCASAS	
Cistales:		
Microrganismos:		

ESTUDIO	RESULTADO	VALORES DE REFERENCIA
Glucosa	70	mg/dL (70.00 - 106.00)
UREA	180.00	mg/dL (14.98 - 36.38)
BUN	84	mg/dL (7.00 - 17.00)
CREATININA	10.5	mg/dL (0.52 - 1.54)
ACIDO URICO	5.4	mg/dL (0.50 - 6.20)
COLESTEROL TOTAL	252	mg/dL (50.00 - 200.00)
PROTEINAS TOTALES	6.1	g/dL (6.30 - 8.20)
ALBUMINA	3.5	g/dL (3.50 - 5.50)
GLOBULINAS	2.6	g/dL (2.0 - 3.0)
ELACION A/G	1.3	(1.50 - 2.20)
LDL	8.7	mg/dL (60 - 160)

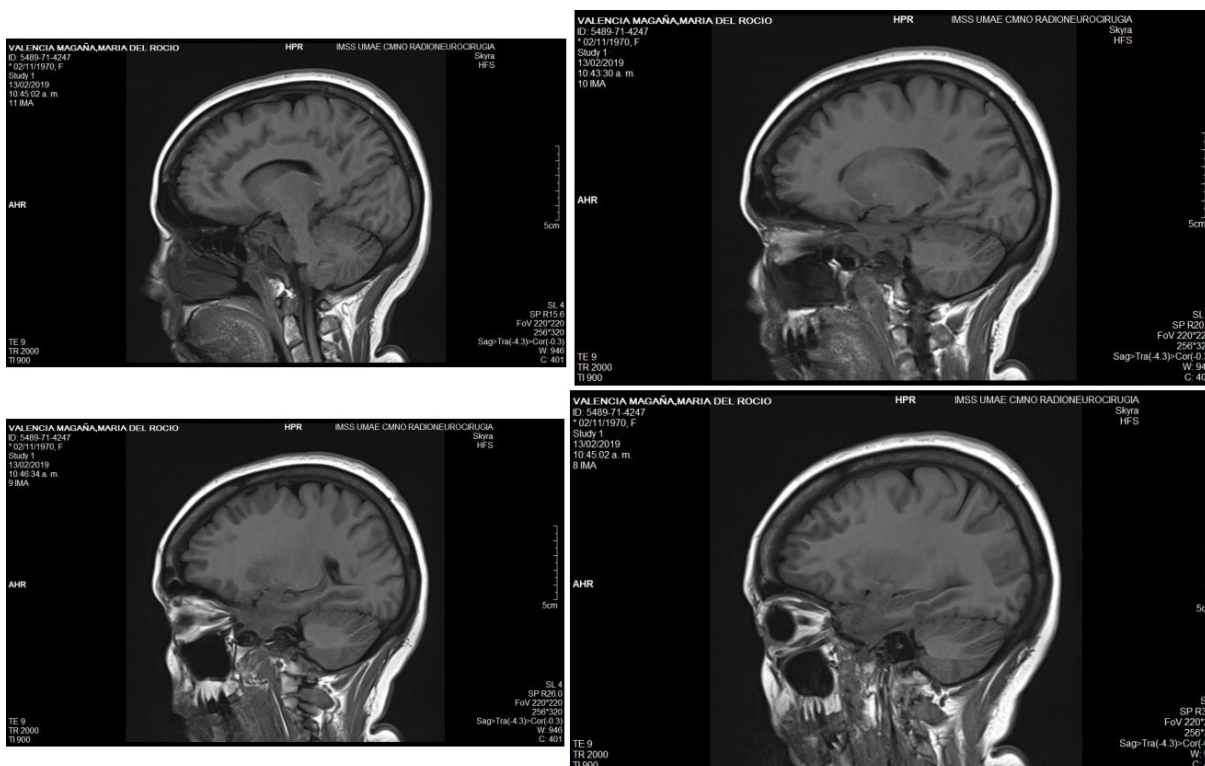
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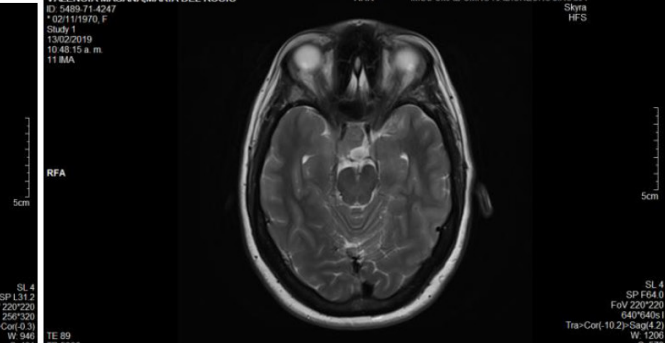
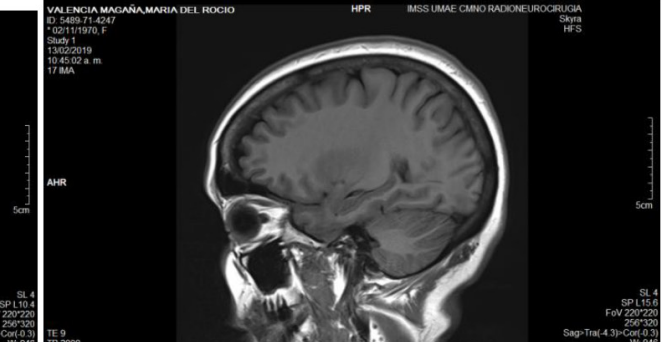
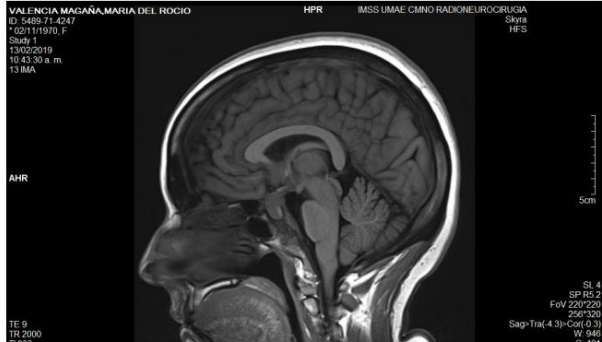
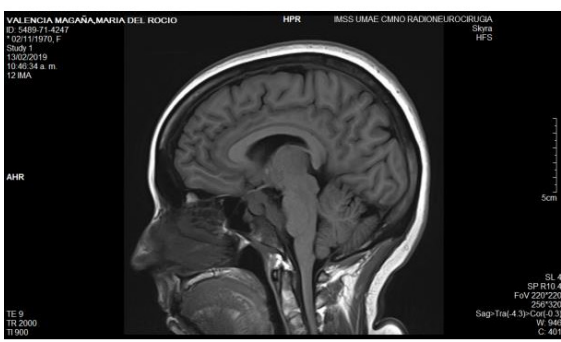
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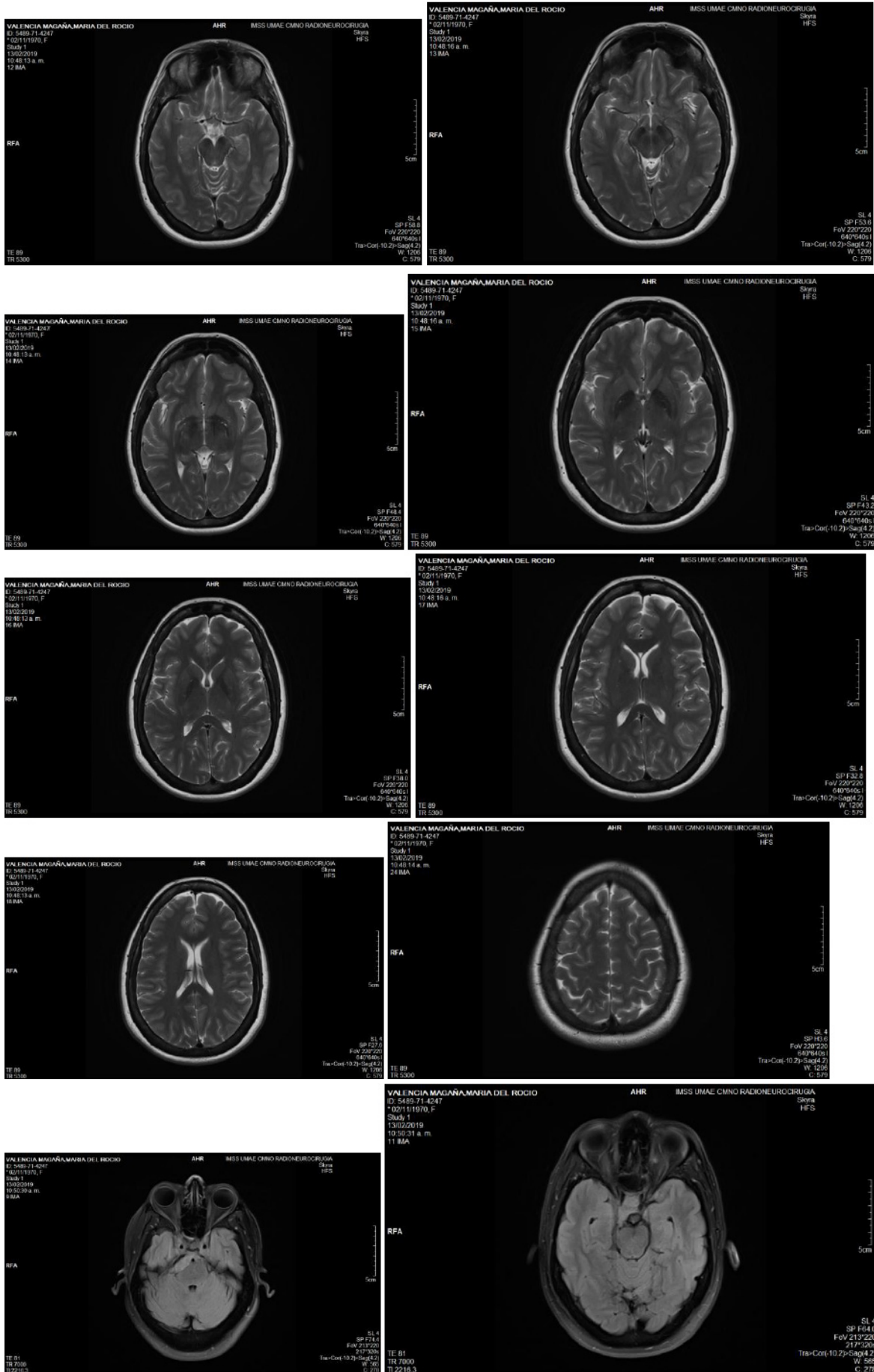
UNIDAD	VALORES DE REFERENCIA
mcU/ml	0.35 - 4.94
ng/ml	4.79 - 23.30
ng/ml	MUJERES: FASE FOLICULAR: 0.20 - 1.50 FASE MEDIA CICLO: 0.80 - 3.0 FASE LUTEA: 1.70 - 27.0 POSTMENOPAUSIA: 0.10 - 0.80 GESTACION: PRIMER TRIMESTRE: 4.73 - 50.74 SEGUNDO TRIMESTRE: 17.0 - 148.0 TERCER TRIMESTRE: 55.0 - 256.0
mU/ml	HOMBRES: 0.20 - 1.40 MUJERES: FASE FOLICULAR: 2.12 - 10.89 FASE MEDIA CICLO: 18.18 - 103.03 FASE LUTEA: 1.20 - 12.86 POSTMENOPAUSIA: 10.87 - 58.64
mU/ml	HOMBRES: 1.24 - 8.62 MUJERES: FASE FOLICULAR: 3.85 - 8.78 FASE MEDIA CICLO: 4.54 - 22.51 FASE LUTEA: 1.79 - 5.12 POSTMENOPAUSIA: 16.74 - 113.59
ng/mL	HOMBRES: 1.27 - 19.26
mcg/dL	4.60 - 12.00
%	22.30 - 48.30
	1.12 - 4.62

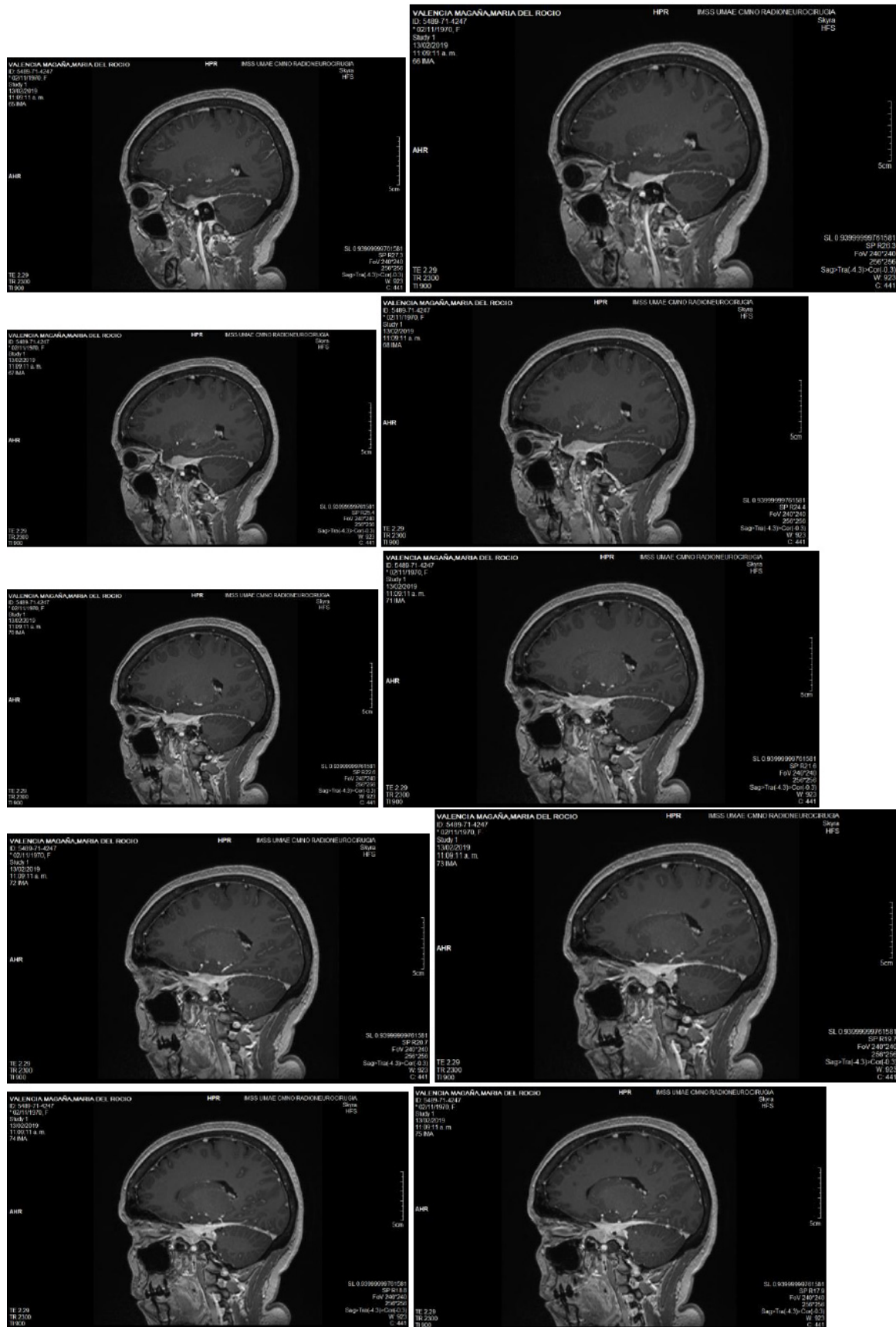
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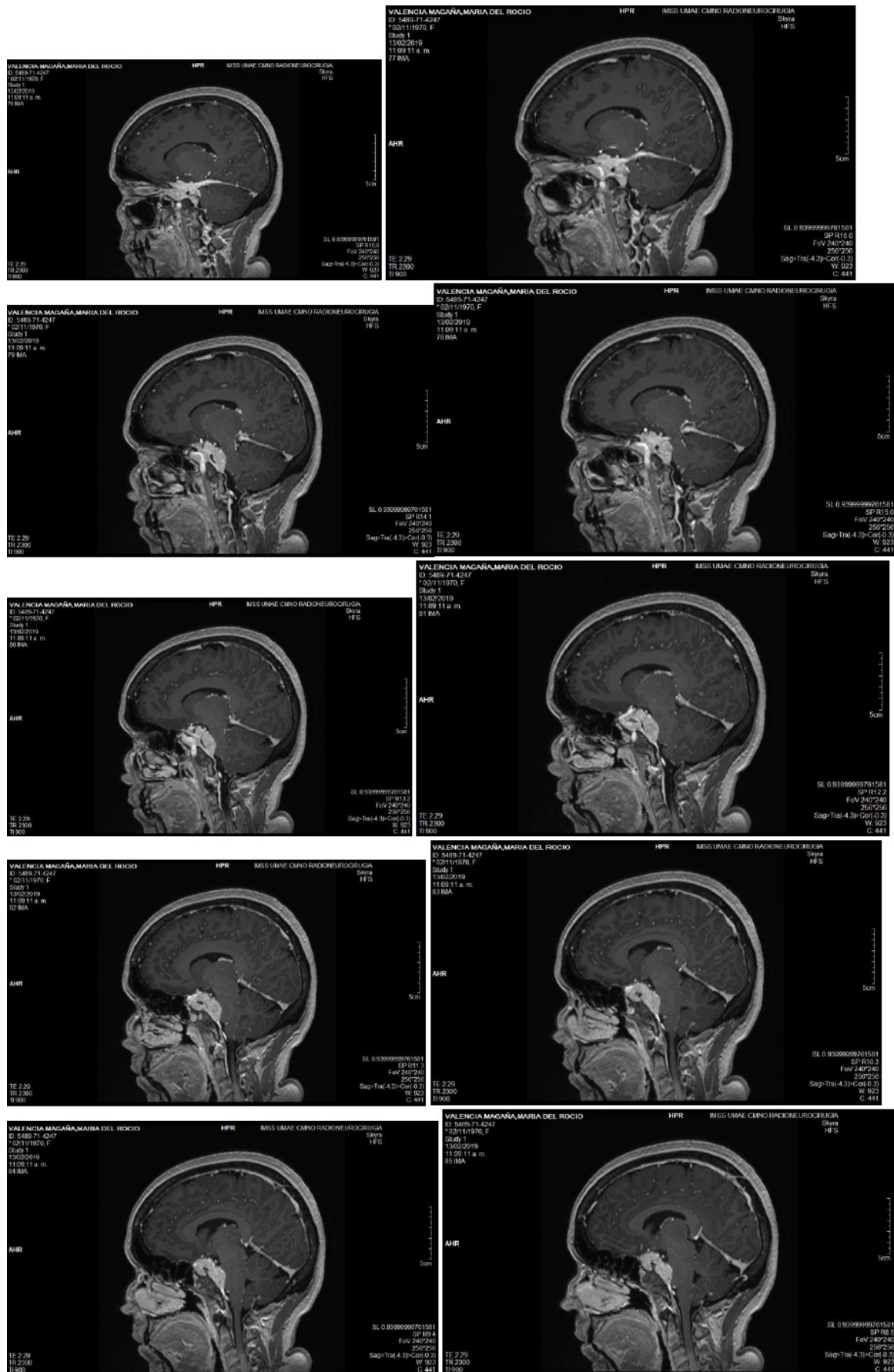
Figure 26

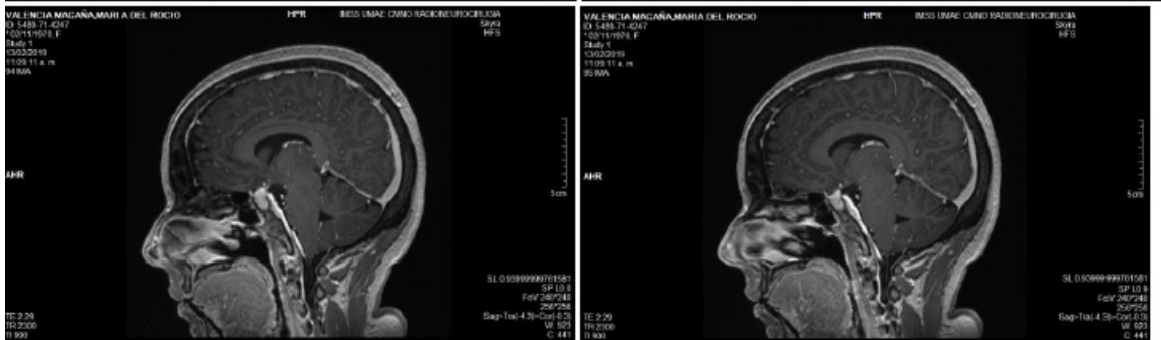
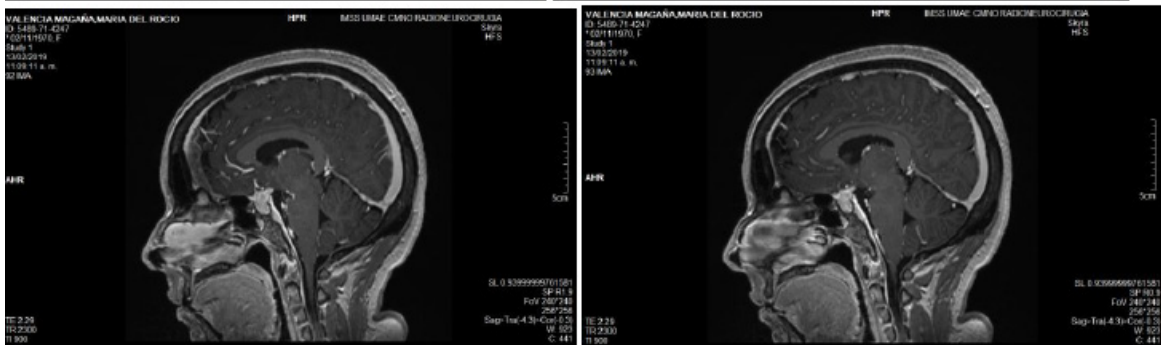
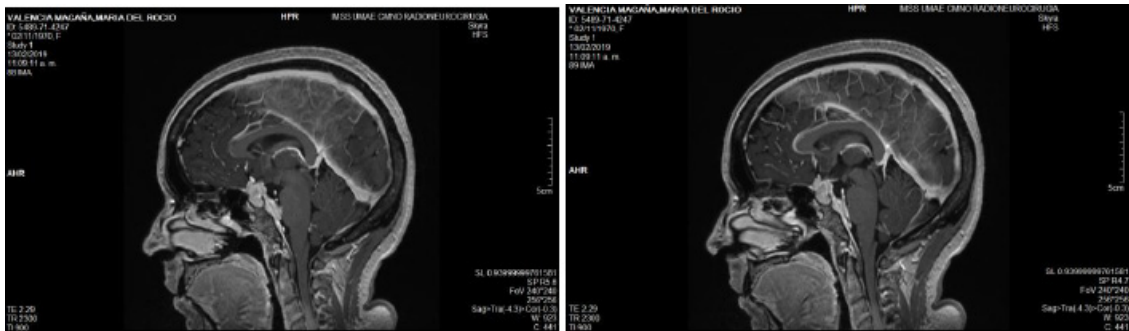
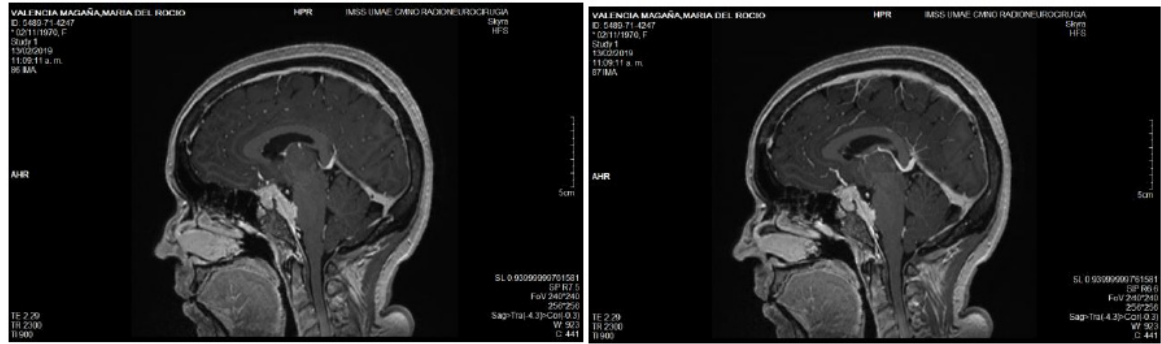












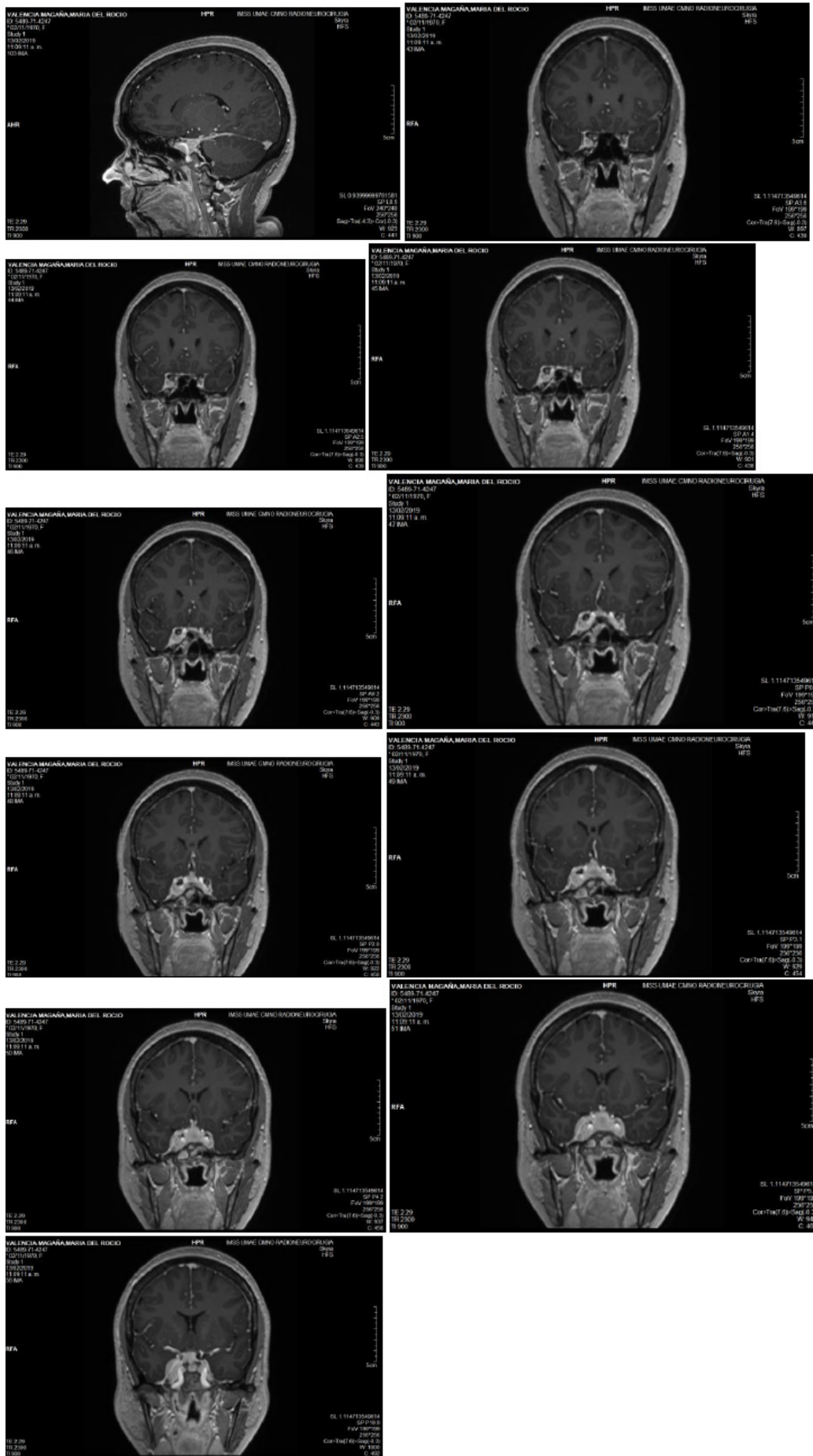
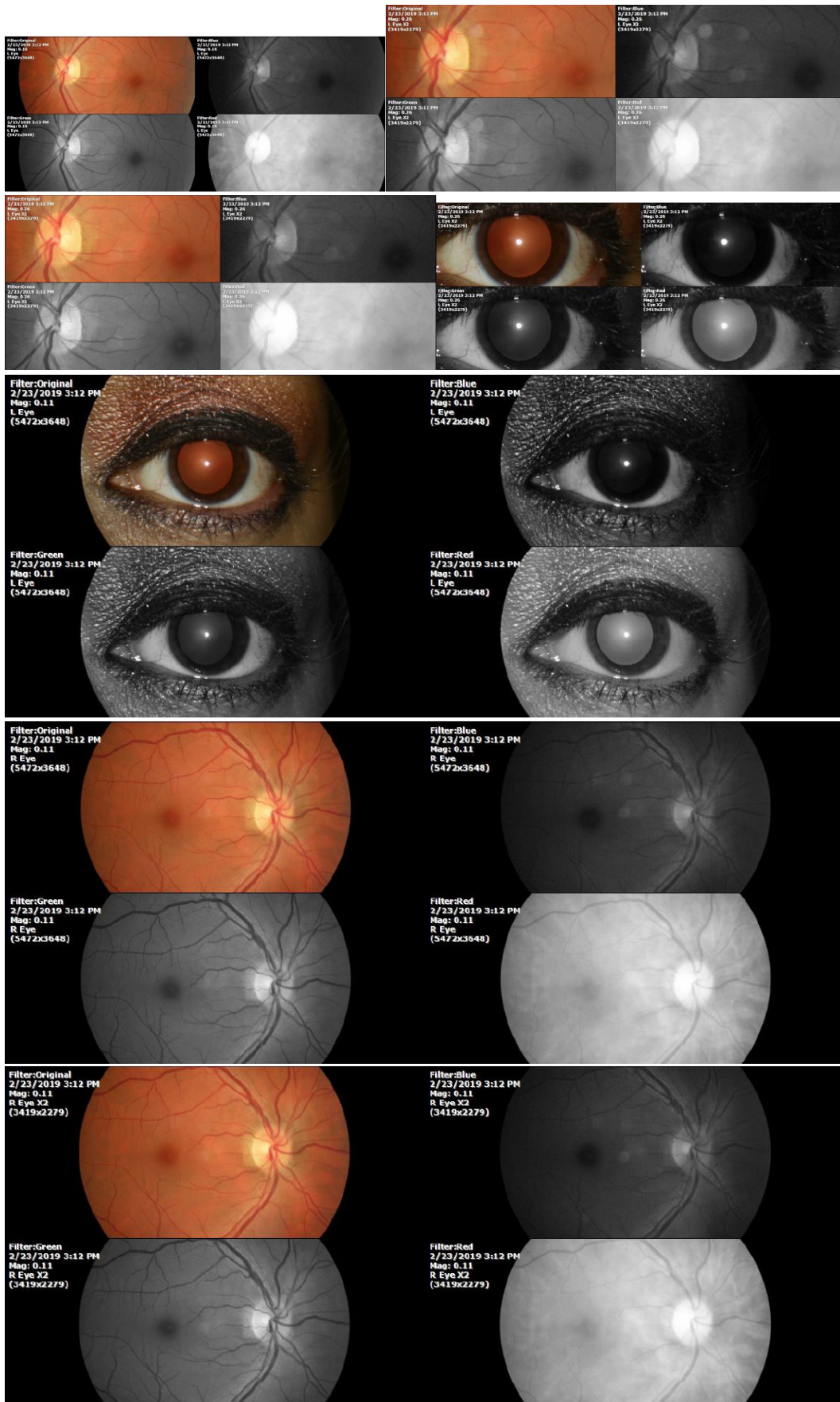


Figure 27

SpO2 %: 95 %
Heartbeat: 74 per minute.
Objective refraction: +/-



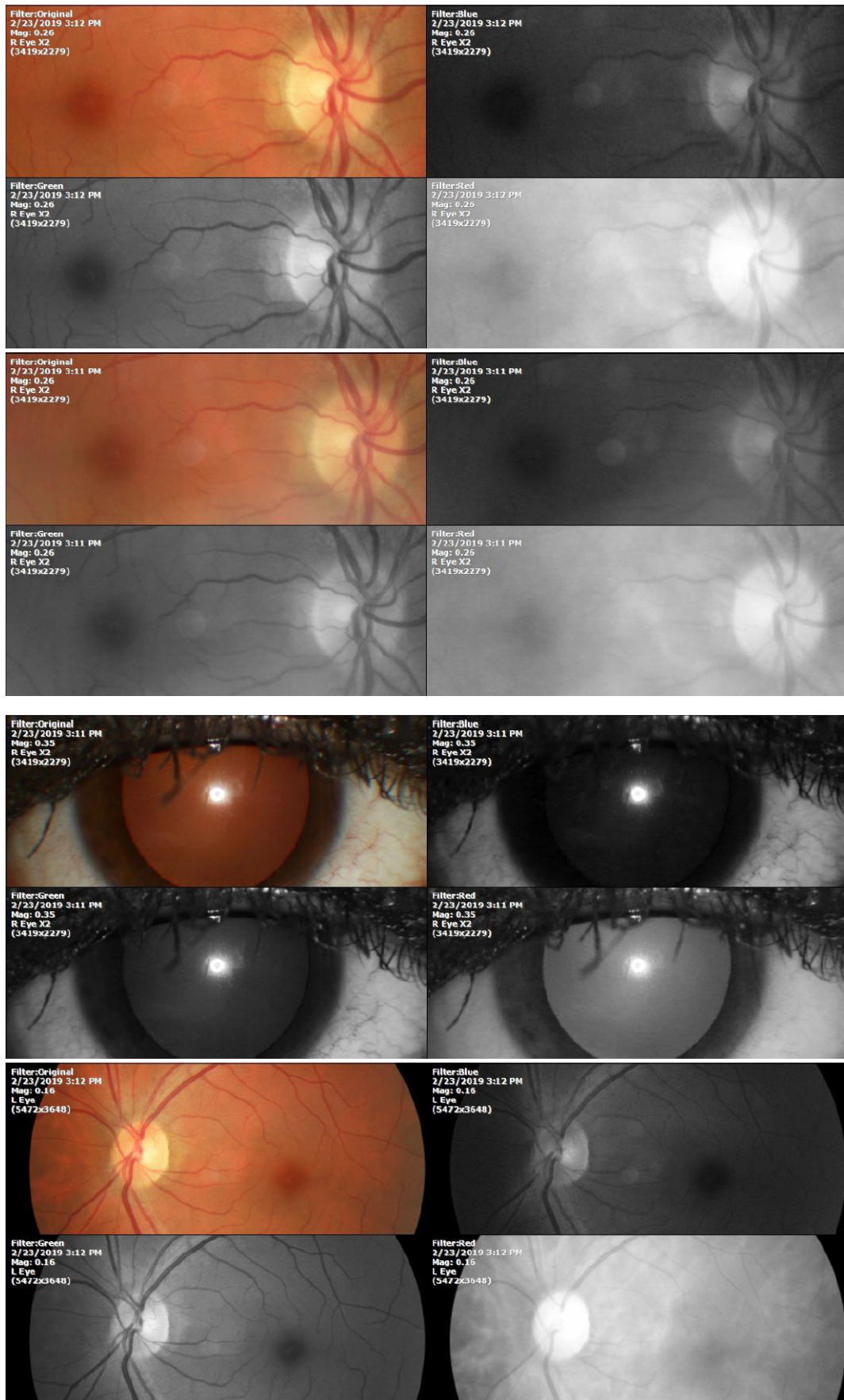


Figure 28

The same regimen of sublingual QIAPI 1 is continued, three drops every hour, as long as the patient is awake and an appointment for a new check-up.

January 25 2020

The patient went for a check-up, reporting feeling well, and leading a normal life, without discomfort especially attributable to the meningioma. It has been reviewed in its state of origin, by the doctors who made the initial diagnosis, based only on clinical examinations every six months, avoiding as much CT scans or MRIs as possible to avoid possible damage from irradiation or by the possible side effects of contrast media. As far as we are concerned, we suggest periodic visual fields.

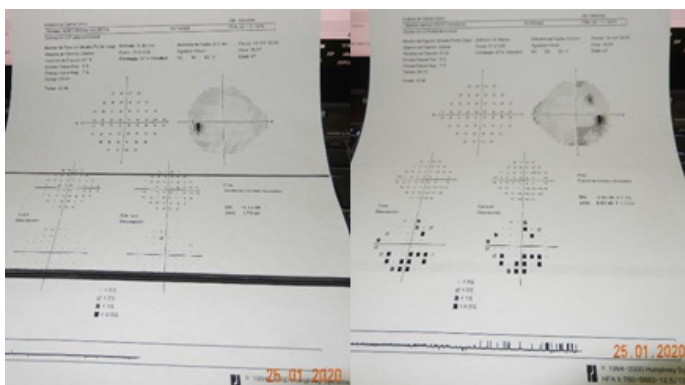


Figure 29: The visual fields carried out on 12/04/2018 showed a relative defect in the lower temporal sector of the visual field of the right eye.

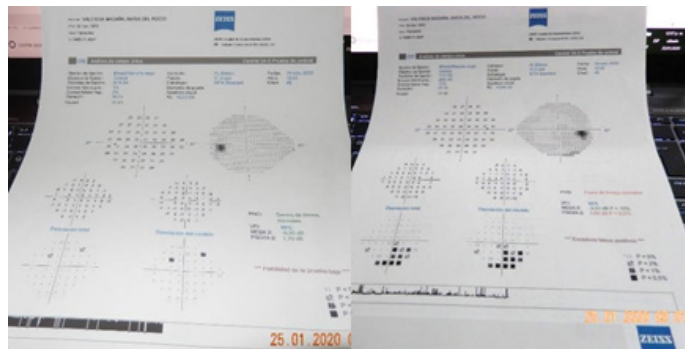


Figure 30: The study of the computerized visual fields performed on 01/14/2020, showed a decrease in the density of the scotoma, initially located in the inferior temporal sector of the visual field of the right eye.

May 8, 2024

The patient did not attend the check-ups (2020-2023), due to the confinements of the COVID 19 pandemic, but continued to use the prescribed treatment. She comes today, referring to feeling well, because she leads a normal life, without any major discomfort.

On physical examination, we found the following:
 SpO2%: 92 %
 Heartbeat: 88 per minute
 Objective refraction: +/+/+

At first, the patient was scheduled every 8 weeks to evaluate the evolution, and as the exams showed a gradual improvement,

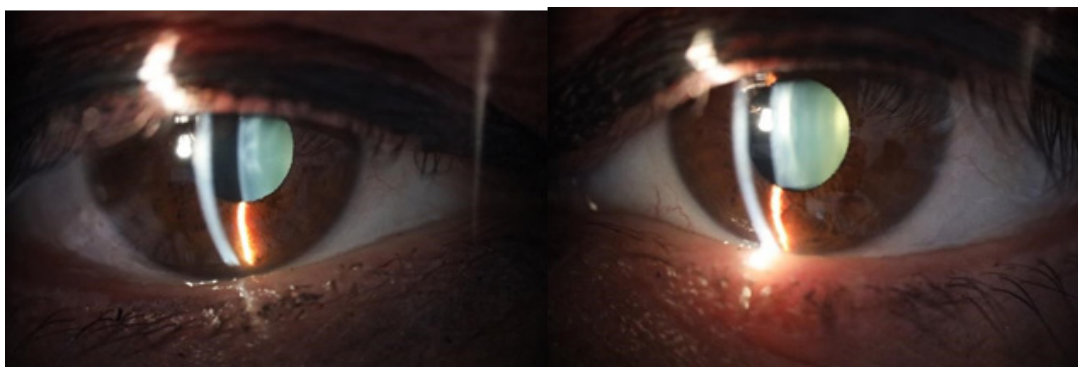


Figure 31: Biomicroscopy of both eyes only shows subtle changes in the anterior region of the lens, especially the right eye (left image).



Figure 32: The images of the anterior segment of both eyes, obtained through the fundus camera; they do not show pathological alterations.

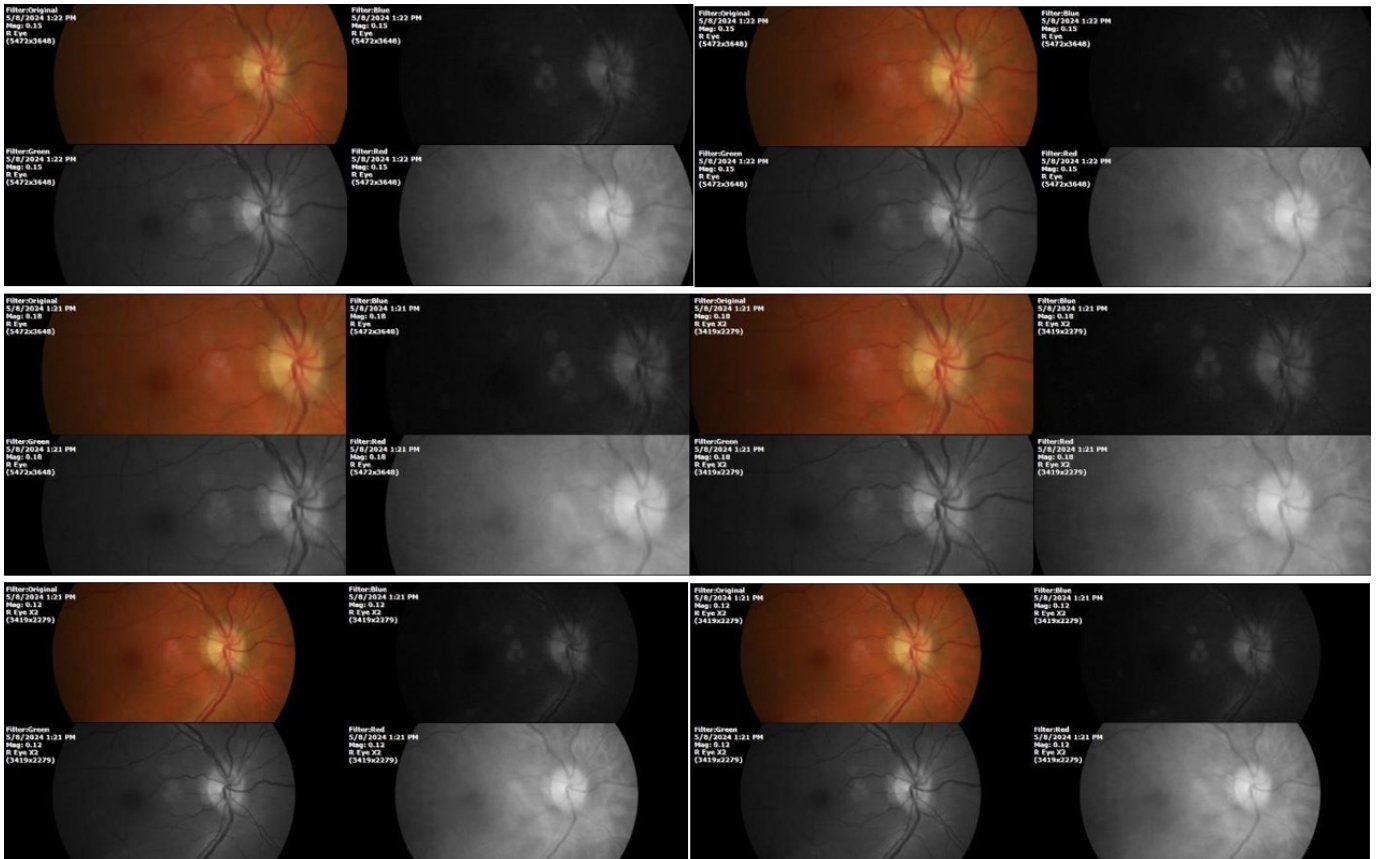


Figure 33: Exploration of the structures that make up the posterior pole of the right eye shows a slight effacement of the nasal rim, without exudates or hemorrhages.

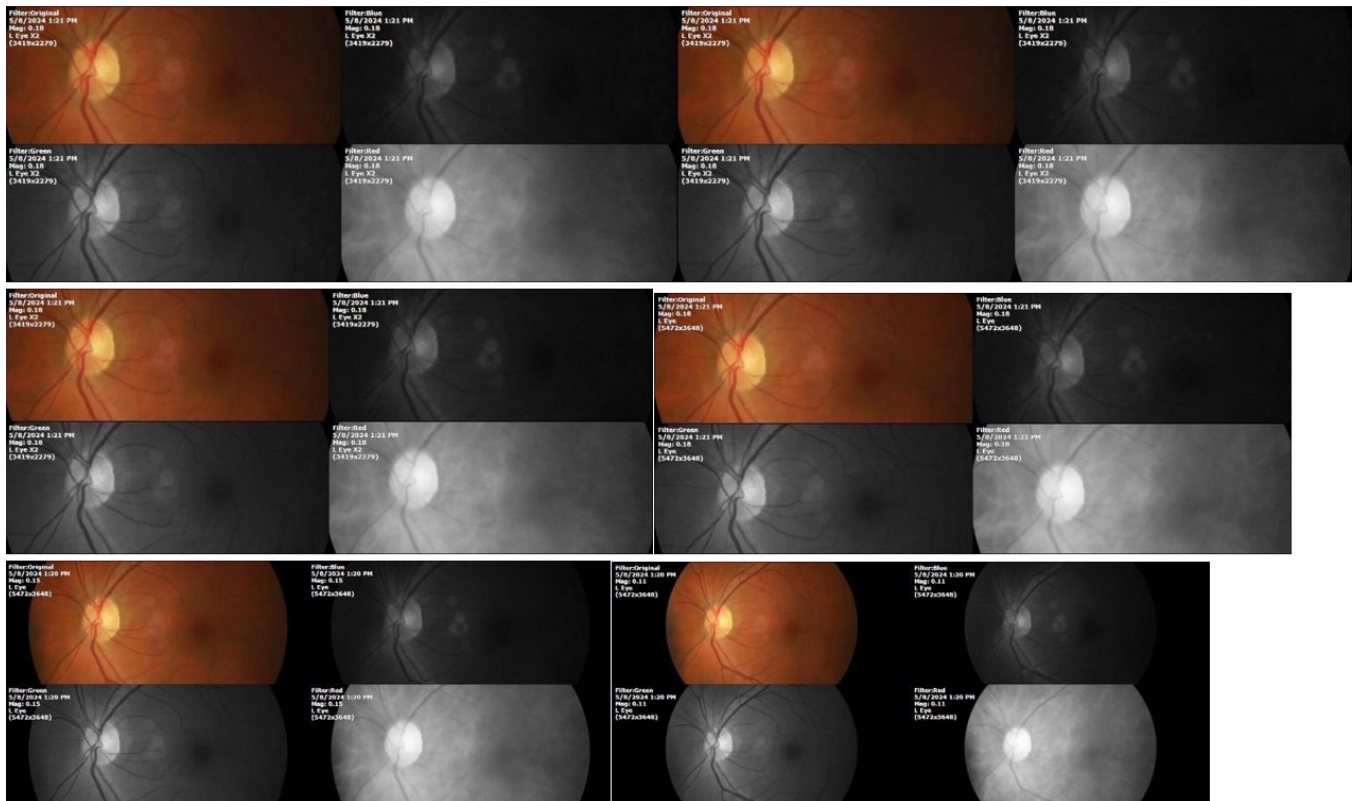


Figure 34: On the other hand, the optic nerve of the left eye does not show any change, nor does it exudate and hemorrhage.

the check-ups began to be extended. And despite the four years that she did not attend for a check-up, the examination shows a satisfactory evolution given the usual history of plaque meningiomas of the sellar region. The patient did not receive any radiotherapy or some type of immunogenic therapy, she has only been treated with sublingual QIAPI 1°, three drops every hour, as long as she is awake. She was advised to continue with the treatment and go for a new check-up in a year.

Comment

Most solid tumors display distinct aneuploid karyotypes (abnormal chromosomal numbers) and frequently mis-segregate whole chromosomes in a phenomenon called chromosomal instability (CIN). CIN positively correlates with poor patient prognosis, indicating that reduced mitotic fidelity contributes to cancer progression by increasing genetic diversity among tumor cells [19]. Mechanisms leading to the loss of mitotic fidelity in CIN are not known. A common mitotic defect in tumor cells with CIN is the persistence of erroneous attachments of chromosomes to spindle microtubules (remotely). But since all biochemical processes and histological structures undoubtedly come from the correct generation of oxygen and hydrogen, from the dissociation of the water molecules located inside the same cells, then they depend almost entirely on this primordial mechanism working as it has done over eons of years.

And when disturbed by the contamination of water, water, air, and food, then the amazingly exact mechanisms that lead to life are unpredictably altered, giving rise to almost any disease. The mechanisms involved in ploidy protection and genomic integrity are highly complex, not understood, and astonishingly accurate, like intracellular water dissociation.

CONCLUSION

In eukaryotes normal cells, of any cell line; organelles are very similar, even in size and distribution; which reflected a surprisingly uniform pattern, which cannot be a result of chance. What is compatible is that all intracellular organelles come from the same fundamental processes, in example: of generation and distribution of Oxygen and Hydrogen, it comes from the dissociation of water molecules, present inside cells, and is carried out by molecules derived from protoporphyrin IX, such as chlorophyll itself, as well as melanin or neuromelanin [20]. which is the one that gave rise to life, and it is the same process that is the basis of evolution. Therefore, when such an exact and constant pattern of oxygen and hydrogen generation is altered, from the dissociation of water, used for eons of years by nature to give rise to life and its subsequent hatching, cells seem tend to involute and tend to behave like bacteria, with messy proliferation.

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Manifesto of interests: Both the discovery of the unsuspected capacity of human eukaryotic cells to transform the power of sunlight into chemical energy by dissociating the molecule from water and the development of the drug were carried out at our facilities in Aguascalientes, Mexico.

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