Table I - Characteristics of the studies

| Author<br>Year               | Objective Kind of Population Characteristics of the study population   |  | Characteristics of the population    | Rehabilitation cardiovascular  | Comparation  | Analyzed<br>variables  | Results   |   |
|------------------------------|--|--|--------------------------------------|--|--|--|---|---|
| Seo et al.<br>2019 [16]      | To evaluate the effects of 8 weeks of exercise-based cardiac rehabilitation on cardiopulmonary fitness and quality of life after RTA surgery.  | Clinical<br>Trial.                                     | 24 patients<br>(GI =12)<br>(GC = 12) | GI - Age: 58.4 ± 6.5 Weight: 73.8 ± 9.6 Paroxysmal FA: 4 Persistent FA 8 Hypertension: 3 Diabetes mellitus: 1 Dyslipidemia: 4 CG - Age: 59.5 ± 6.1 Weight: 72.5 ± 9.5 Paroxysmal FA: 4 Persistent FA 8 Hypertension: 6 Dyslipidemia: 2   | 2 sessions per week for 8 weeks with aerobic training at an intensity of 40% to 50% of RHR for 10 minutes, with progression throughout the sessions to 75% of RHR in up to 30 minutes. Resistance training was started after 2 weeks of aerobic training, performed in 2 to 3 sets with 10 to 15 repetitions. The load or intensity of resistance training was not reported. | The CG had only drug treatment.  | VO 2 max and mental and physical component score of the SF-36 questionnaire).   | Improvement of<br>the physical<br>and mental<br>component of<br>the SF-36<br>showed<br>significant<br>improvement.  |
| Kato <i>et al.</i> 2019 [17] | To evaluate the effects of cardiac rehabilitation on exercise capacity, cardiac function, inflammatory status, and safety in patients with persistent AF undergoing catheter ablation. | Controlled<br>and<br>randomiz<br>ed clinical<br>trial. | 68 Patients (GI= 34) (GC = 34)       | GI - Age: 67 ± 10 BMI: 23.8 ± 2.6 Persistent FA: 28 Long-term persistent AF (≥ 8 months): 5 Hypertension: 20 diabetes: 5 Dyslipidemia: 11 CG - Age: 65 ±8 BMI: 23.9 ± 3.2 Persistent FA: 31 Long-term persistent AF (≥ 8 months): 6 Hypertension: 18 diabetes: 7 Dyslipidemia: 11. | The IG performed supervised exercise 1-2 times weekly and unsupervised moderate-intensity walking exercise for 30 min, 2-3 times weekly for 6 months. Each session lasted 60min, 30min of endurance exercises at moderate intensity, 30min of resistance exercises with an intensity of 40% to 50% of 1RM.   | The CG had a visit with a cardiologist at the hospital for follow-up at one, three and six months. | Physical Function; Exercise Capacity; Weight; FC; Echocardiograp hic parameters; inflammatory status and other blood markers; | Increase in components of physical function and exercise capacity except RER; Improved cardiac function and inflammatory status. There was no increased risk in cardiac rehabilitation. |

| Author<br>Year                    | Objective  | Kind of study                        | Population                              | Characteristics of the population  | Rehabilitation<br>cardiovascular  | Comparation   | Analyzed<br>∨ariables   | Results   |
|-----------------------------------|--|--------------------------------------|---|--|---|---|---|---|
| Rissom <i>et al.</i> 2016<br>[18] | To assess the effects of comprehensive cardiac rehabilitation compared with usual care on the physical capacity and mental health of patients treated with catheter ablation for AF. | randomiz<br>ed<br>clinical<br>trial. | 210 patients<br>(GI= 105)<br>(GC = 105) | GI - Age: 60 ± 9<br>BMI: 27 ± 46<br>Paroxysmal FA: 76<br>Persistent FA 29<br>Hypertension: 30<br>Diabetes mellitus: 4<br>Palpitation: 68<br>GC - Age: 59 ± 12.25<br>BMI: 28 ± 5.62<br>Paroxysmal FA: 76<br>Persistent FA 29<br>Hypertension: 31<br>diabetes: 5<br>Palpitation: 53. | Three sessions per week for 12 weeks. Rehabilitation was through graded cardiovascular training, intensity measured using the 15-point Borg scale, and strength exercises gradually changed during training sessions. The training intensity was progressively increased during the 12 weeks. | Usual care,<br>including a 3- to<br>6-month follow-<br>up visit with a<br>physician | Ergospirometry (VO <sub>2max</sub> ),<br>6MWT, Sit to<br>stand test, SF -<br>36, Adverse<br>Events. | There was a significant improvement in VO 2 max. And there were no significant QOL results. |

ATT = totally thoracoscopic ablation, GC = control group, GI = intervention group; AF = atrial fibrillation, HRR = heart rate reserve, 1RM = one repetition maximum, PCF = physical component scores, BMI = body mass index, 6MWT = 6-minute walk test, CM = maximal load, RER = Respiratory Exchange, LA = anaerobic threshold, HR = heart rate, ECHO = echocardiogram, QOL = quality of life; SF-36 = Abridged version of Questionnaire 36; VO<sub>2max</sub> = Maximum oxygen consumption; \*The studies adopted the value of P< 0.05 as statistically relevant. Source = Authors' elaboration

Table II - Results of the studies

|          | VO₂ (ml/kg/min)  | 6MWT (m)      | Quality of life   |
|----------|------------------|---------------|---|
| Seo et   | Baseline:        | • •           | Two physical health scores (physical function, P =  |
| al, 2019 | GC: 28.31± 7.44  |               | 0.013 and general health, $P = 0.05$ ) and three mental   |
| [16]     | GI: 26.91 ± 7.18 |               | health scores (vitality, $P = 0.027$ , social function, $P = 0.016$ and mental health, $P = 0.003$ ) improved |
|          | Side dish:       |               | significantly.  |
|          | GC: 26.85± 6.23  |               |   |
|          | GI: 28.89 ± 7.63 |               |   |
|          | (P = 0.055)      |               |   |
|          | Baseline:        | Baseline:     |   |
| Kato et  | GI: 17.8 ± 3.4   | GC: 551 ± 84  |   |
| al, 2019 | Side dish:       | GI: 545 ± 123 |   |
| [17]     | GI: 19.8 ± 4.6   | Side dish:    |   |
|          | (P < 0.01)       | GC: 565 ± 95  |   |
|          | ,                | GI: 596 ±95   |   |
|          |                  | (P < 0.01)    |   |
| Rissom,  | Baseline:        | Baseline:     | The self-reported SF-36 PCM – No significant  |
| et al,   | GC: 20           | GC: 559       | difference between groups (53.8 points vs. 51.9 points  |
| 2016     | GI: 22           | GI: 548       | P = 0.20)   |
| [18]     | Side dish:       | Side dish:    | ,   |
|          | GC: 21           | GC: 576       |   |
|          | GI: 24           | GI: 592       |   |
|          | (P = 0.003)      | (P = 0.88)    |   |

6MWT = 6-minute walk test; CG = control group; IG = intervention group; PCM = mental component scores. Source: Authors' elaboration

**Table III –** Methodological quality of the studies

| STUDY                   | 1   | two | 3   | 4   | 5  | 6  | 7   | 8   | 9   | 10  | 11  | TOTAL | AVERAGE |
|-------------------------|-----|-----|-----|-----|----|----|-----|-----|-----|-----|-----|-------|---------|
| Seo et al, 2019 [16]    | Yea | No  | No  | Yea | No | No | No  | Yea | Yea | Yea | Yea | 5/10  |         |
| Kato et al, 2019 [17]   | Yea | Yea | No  | Yea | No | No | Yea | Yea | No  | Yea | Yea | 6/10  | 5.6     |
| Rissom et al, 2016 [18] | Yea | Yea | Yea | Yea | No | No | Yea | No  | Yea | Yea | No  | 6/10  | _       |

<sup>1 =</sup> Specification of inclusion criteria; 2 = Random allocation; 3 = Secrecy in the allocation; 4 = Initial similarity between groups; 5 = Masking of participants; 6 = Therapist masking; 7 = Masking of evaluators; 8 = Measures of a primary outcome (85% of participants); 9 = Intent-to-treat analysis; 10 = Comparison between groups on a primary outcome; 11 = Central tendency and variability of at least one variable. \*Item 1 did not contribute to the total score. Source = Authors' elaboration